

COMMITTEE PRINT

SPACE LAW

Selected Basic Documents

STAFF REPORT

PREPARED FOR THE USE OF THE

COMMITTEE ON AERONAUTICAL AND
SPACE SCIENCES
UNITED STATES SENATE



DECEMBER 30, 1976

Printed for the use of the Committee on Aeronautical and Space Sciences

94th Congress }
2d Session }

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U.S. GOVERNMENT PRINTING OFFICE

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SPACE LAW

SELECTED BASIC DOCUMENTS

INTRODUCTION

The Committee on Aeronautical and Space Sciences has been concerned with the development of space law since satellites were first orbited and there was recognition that legal problems would arise as a result of the use and exploration of outer space. In exercising its jurisdiction under the Senate rules "... to survey and review, and to prepare studies and reports upon, aeronautical and space activities of all agencies of the United States ...", the Committee has kept abreast of the progress made in this field.

The first study, *Space Law*, was initiated in 1958 by Senator Lyndon B. Johnson who was the chairman of the Senate Special Committee on Space and Astronautics, the immediate predecessor of the Senate Committee on Aeronautical and Space Sciences. So great was the worldwide demand for this publication that a second symposium was published in 1961 on *Legal Problems of Space Exploration*, a document which reveals the extent and depth of analysis concerned with the establishment of an international legal regime devoted to the encouragement of peaceful purposes, and the avoidance of harmful consequences, resulting from the variety of uses of the space environment. Both studies were edited by Eilene Galloway, Special Consultant to the Committee.

Space activities have brought about a high degree of cooperation among nations, a development which strengthens the conditions for world peace. Through the years this Committee has also surveyed and made available to the Senate and the public the developing patterns of international cooperation on outer space activities. The strength of the U.S. space program was developed in accordance with the National Aeronautics and Space Act of 1958, which requires the United States to be "a leader in aeronautical and space science and technology and in the application thereof to the conduct of peaceful activities within and outside the atmosphere." This strength has been essential in providing the means and methods which foster international cooperation. One has only to note that NASA has had in excess of 800 cooperative space agreements with other countries to realize the opportunities afforded by space science and technology in bringing people and nations together for mutually advantageous purposes.

The climate of international opinion which developed in connection with the progress of space activities helped to form the basis for cooperation in the United Nations where the Committee on the Peaceful Uses of Outer Space, and particularly its Legal Subcommittee, were charged with the responsibility of drafting treaties to guide

States in the conduct of their space activities. The texts of space treaties were attained by consensus rather than by voting, and this unanimity of agreement formed a solid foundation for the developing regime of international space law. Efforts are continuing in the Legal Subcommittee to keep international law abreast and foresightedly ahead of space science and technology.

As legal developments occur in the United Nations and elsewhere, there is a need to know what has been accomplished and what remains to be done. As new legal issues arise, it is necessary to ensure that the total body of space law is harmonious and avoids internal conflicts. Space law, whether national or international, has been developing step by step over a period of some 18 years and can be expected to continue this pattern in order to meet the demands of new space applications.

The purpose of this collection is to provide the texts of existing basic documents so that those responsible for formulating legal principles to guide States in the conduct of future space activities will be assisted in constructing a consistent body of international space law. The document should also be of assistance to those who wish to study the progress that has been made since the beginning of the space age.

Senator FRANK E. Moss,
Chairman.

MULTILATERAL

Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water

Done at Moscow August 5, 1963;

*Ratification advised by the Senate of the United States of America
September 24, 1963;*

*Ratified by the President of the United States of America October 7,
1963;*

*Ratifications of the Governments of the United States of America,
the United Kingdom of Great Britain and Northern Ireland,
and the Union of Soviet Socialist Republics deposited with
the said Governments at Washington, London, and Moscow
October 10, 1963;*

*Proclaimed by the President of the United States of America Octo-
ber 10, 1963;*

Entered into force October 10, 1963.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

WHEREAS the Treaty banning nuclear weaoon tests in the atmosphere, in outer space and under water was signed at Moscow on August 5, 1963 by the respective plenipotentiaries of the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics, and was thereafter opened to other States for signature at Washington, London, and Moscow;

WHEREAS the text of the Treaty, in the English and Russian languages, as certified by the Department of State of the United States of America, is word for word as follows:

T R E A T Y

banning nuclear weapon tests
in the atmosphere, in outer
space and under water

The Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics, hereinafter referred to as the "Original Parties",

Proclaiming as their principal aim the speediest possible achievement of an agreement on general and complete disarmament under strict international control in accordance with the objectives of the United Nations which would put an end to the armaments race and eliminate the incentive to the production and testing of all kinds of weapons, including nuclear weapons,

Seeking to achieve the discontinuance of all test explosions of nuclear weapons for all time, determined to continue negotiations to this end, and desiring to put an end to the contamination of man's environment by radioactive substances,

Have agreed as follows:

Article I

1. Each of the Parties to this Treaty undertakes to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control:

(a) in the atmosphere; beyond its limits, including outer space; or underwater, including territorial waters or high seas; or

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(b) in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control such explosion is conducted. It is understood in this connection that the provisions of this subparagraph are without prejudice to the conclusion of a treaty resulting in the permanent banning of all nuclear test explosions, including all such explosions underground, the conclusion of which, as the Parties have stated in the Preamble to this Treaty, they seek to achieve.

2. Each of the Parties to this Treaty undertakes furthermore to refrain from causing, encouraging, or in any way participating in, the carrying out of any nuclear weapon test explosion, or any other nuclear explosion, anywhere which would take place in any of the environments described, or have the effect referred to, in paragraph 1 of this Article.

Article II

1. Any Party may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments which shall circulate it to all Parties to this Treaty. Thereafter, if requested to do so by one-third or more of the Parties, the Depositary Governments shall convene a conference, to which they shall invite all the Parties, to consider such amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to this Treaty, including the votes of all of the Original Parties. The amendment shall enter into force for all Parties upon the

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deposit of instruments of ratification by a majority of all the Parties, including the instruments of ratification of all of the Original Parties.

Article III

1. This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.

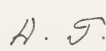
2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the Original Parties -- the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics -- which are hereby designated the Depositary Governments.

3. This Treaty shall enter into force after its ratification by all the Original Parties and the deposit of their instruments of ratification.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Treaty, the date of its entry into force, and the date of receipt of any requests for conferences or other notices.

6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.^[1]

  
¹TS 993, 59 Stat. 1052.

Article IV

This Treaty shall be of unlimited duration.

Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty three months in advance.

Article V

This Treaty, of which the English and Russian texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE in triplicate at the city of Moscow the fifth
day of August , one thousand nine hundred and
sixty-three.

For the Government
of the United States
of America

For the Government
of the United Kingdom
of Great Britain and
Northern Ireland

For the Government
of the Union of
Soviet Socialist
Republics

Dean Rusk

Home

A. Gromyko

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A. S.

Signatures and ratifications deposited to the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water. Entered into force October 10, 1963.

<u>Signatures</u> *	<u>Ratifications deposited</u> *
Afghanistan	March 12, 1964 - L
August 8, 1963 - W,L	March 13, 1964 - W
August 9, 1963 - M	March 23, 1964 - M
Algeria	
August 14, 1963 - W,L	
August 19, 1963 - M	
Argentina	
August 8, 1963 - W	
August 9, 1963 - L	
Australia	November 12, 1963 - W,L,M
August 8, 1963 - W,L,M	
Austria	July 17, 1964 - W,L,M
September 11, 1963 - W,M	
September 12, 1963 - L	
Belgium	March 1, 1966 - W,L,M
August 8, 1963 - W,L,M	
Bolivia	August 4, 1965 - W
August 8, 1963 - W	January 25, 1966 - L
August 21, 1963 - L	
September 20, 1963 - M	
Brazil	December 15, 1964 - M
August 8, 1963 - W,L	January 15, 1965 - W
August 9, 1963 - M	March 4, 1965 - L
Bulgaria	November 13, 1963 - W
August 8, 1963 - W,L,M	November 21, 1963 - M
	December 2, 1963 - L
Burma	November 15, 1963 - W,L,M
August 14, 1963 - W,L,M	
Burundi	
October 4, 1963 - W	
Byelorussian Soviet Socialist Rep.	December 16, 1963 ¹ - M
October 8, 1963 - M	
Cameroon	
August 27, 1963 - W	
September 6, 1963 - L	
Canada	January 28, 1964 - W,L,M
August 8, 1963 - W,L,M	
Ceylon	February 5, 1964 - W
August 22, 1963 - W,L	February 12, 1964 - M
August 23, 1963 - M	February 13, 1963 - L
Chad	March 1, 1965 - W
August 26, 1963 - W	
Chile	October 6, 1965 - L
August 8, 1963 - W	
August 9, 1963 - L,M	
China	May 18, 1964 - W
August 23, 1963 - W	
Congo (Kinshasa)	October 28, 1965 - W
August 9, 1963 - W,L	
August 12, 1963 - M	
Colombia	
August 16, 1963 - W,M	
August 20, 1963 - L	
Costa Rica	July 10, 1967 - W
August 9, 1963 - L	
August 13, 1963 - W	
August 23, 1963 - M	
Cyprus	April 15, 1965 - L
August 8, 1963 - W,L,M	April 21, 1965 - M
	May 7, 1965 - W
Czechoslovakia	October 14, 1963 - L,M
August 8, 1963 - W,L,M	October 17, 1963 - W

*W, L, and M indicate Washington, London, and Moscow.

-2-

Dahomey
 August 27, 1963 - W
 September 3, 1963 - L
 Denmark
 August 9, 1963 - W,L,M
 Dominican Republic
 September 16, 1963 - W
 September 17, 1963 - L
 September 19, 1963 - M
 Ecuador
 September 27, 1963 - W
 October 1, 1963 - L,M
 El Salvador
 August 21, 1963 - W
 August 22, 1963 - L
 August 23, 1963 - M
 Ethiopia
 August 9, 1963 - W,L
 September 19, 1963 - M
 Finland
 August 8, 1963 - W,L,M
 Gabon
 September 10, 1963 - W
 German Democratic Rep.
 August 8, 1963 - M
 Germany, Federal Rep.
 August 19, 1963 - W,L,M
 Ghana
 August 8, 1963 - M
 August 9, 1963 - W
 September 4, 1963 - L
 Greece
 August 8, 1963 - W
 August 9, 1963 - L,M
 Guatemala
 September 23, 1963 - W
 Haiti
 October 9, 1963 - W
 Honduras
 August 8, 1963 - W
 August 15, 1963 - L
 August 16, 1963 - M
 Hungary
 August 8, 1963 - W,L,M
 Iceland
 August 12, 1963 - W,L,M
 Indonesia
 August 23, 1963 - W,L,M
 Iran
 August 8, 1963 - W,L,M
 Iraq
 August 13, 1963 - W,L,M
 Ireland
 August 8, 1963 - W,L
 August 9, 1963 - M
 Israel
 August 8, 1963 - W,L,M
 Italy
 August 8, 1963 - W,L,M
 India
 August 8, 1963 - W,L,M
 December 15, 1964 - W
 December 23, 1964 - M
 April 22, 1965 - L
 January 15, 1964 - W,L,M
 June 3, 1964 - M
 June 18, 1964 - L
 July 22, 1964 - W
 May 6, 1964 - W
 May 8, 1964 - L
 November 13, 1964 - M
 December 3, 1964 - W
 December 7, 1964 - L
 February 9, 1965 - M
 January 9, 1964 - W,L,M
 February 20, 1964 - W
 March 4, 1964 - L
 March 9, 1964 - M
 December 30, 1963 - M²/_✓
 December 1, 1964 - W,L³/_✓
 November 27, 1963 - L
 January 9, 1964 - W
 May 31, 1965 - M
 December 18, 1963 - W,L,M
 January 6, 1964 - W⁴/_✓
 October 2, 1964 - W
 December 2, 1964 - L
 October 21, 1963 - L
 October 22, 1963 - W
 October 23, 1963 - M
 April 24, 1964 - W,L,M
 January 20, 1964 - M ; May 8, 1964 - L
 January 27, 1964 - W
 May 5, 1964 - W,L,M
 November 30, 1964 - L
 December 1, 1964 - W
 December 3, 1964 - M
 December 18, 1963 - W,L
 December 20, 1963 - M
 January 15, 1964 - W,L
 January 28, 1964 - M
 December 10, 1964 - W,L,M
 October 10, 1963 - L
 October 14, 1963 - M
 October 18, 1963 - W

-3-

Ivory Coast
 September 5, 1963 - W
 Jamaica
 August 13, 1963 - W,L,M
 Japan
 August 14, 1963 - W,L,M
 Jordan
 August 12, 1963 - W,L
 August 19, 1963 - M
 Korea
 August 30, 1963 - W,L
 Kuwait
 August 20, 1963 - W,L
 Laos
 August 12, 1963 - W,L,M
 Lebanon
 August 12, 1963 - W
 August 13, 1963 - L,M
 Liberia
 August 8, 1963 - W
 August 16, 1963 - L
 August 27, 1963 - M
 Libya
 August 9, 1963 - L
 August 16, 1963 - W,M
 Luxembourg
 August 13, 1963 - L
 September 3, 1963 - W
 September 13, 1963 - M
 Madagascar
 September 23, 1963 - W
 Malaysia
 August 8, 1963 - W
 August 12, 1963 - L
 August 21, 1963 - M
 Mali
 August 23, 1963 - W,L,M
 Mauritania
 September 13, 1963 - W
 September 17, 1963 - L
 October 8, 1963 - M
 Mexico
 August 8, 1963 - W,L,M
 Mongolia
 August 8, 1963 - L,M
 Morocco
 August 27, 1963 - W,M
 August 30, 1963 - L
 Nepal
 August 26, 1963 - L,M
 August 30, 1963 - W
 Netherlands
 August 9, 1963 - W,L,M
 New Zealand
 August 8, 1963 - W,L,M
 Nicaragua
 August 13, 1963 - W,L
 August 16, 1963 - M
 Niger
 September 24, 1963 - W,L
 Nigeria
 August 30, 1963 - M
 September 2, 1963 - L
 September 4, 1963 - W

February 5, 1965 - W

June 15, 1964 - W,L,M

May 29, 1964 - L
 July 7, 1964 - M
 July 10, 1964 - W
 July 24, 1964 - W,L⁴/

May 20, 1965 - W⁴/
 May 21, 1965 - L
 June 17, 1965 - M
 February 10, 1965 - L
 February 12, 1965 - W
 April 7, 1965 - M
 May 14, 1965 - W
 May 20, 1965 - L
 June 4, 1965 - M
 May 19, 1964 - W
 May 22, 1964 - L
 June 16, 1964 - M

July 15, 1968 - L

February 10, 1965 - W,L,M

March 15, 1965 - W

July 15, 1964 - M
 July 16, 1964 - W,L

April 6, 1964 - W
 April 15, 1964 - L
 April 28, 1964 - M

December 27, 1963 - W,L,M

November 1, 1963 - M
 November 7, 1963 - L
 February 1, 1966 - L
 February 18, 1966 - M
 February 21, 1966 - W
 October 7, 1964 - W,L,M

September 14, 1964 - W²/, L,M

October 10, 1963 - W,L
 October 16, 1963 - M
 January 26, 1965 - L
 February 26, 1965 - W,M

July 3, 1964 - M
 July 6, 1964 - L
 July 9, 1964 - W
 February 17, 1967 - L
 February 25, 1967 - M
 February 28, 1967 - W

-4-

Norway
August 9, 1963 - W,L,M

Pakistan
August 14, 1963 - W,L,M

Panama
September 20, 1963 - W

Paraguay
August 15, 1963 - W,L
August 21, 1963 - M

Peru
August 23, 1963 - W,L,M

Philippines
August 8, 1963 - W,L
August 14, 1963 - M

Poland
August 8, 1963 - W,L,M

Portugal
October 9, 1963 - W

Romania
August 8, 1963 - W,L,M

Rwanda
September 19, 1963 - W

San Marino
September 17, 1963 - W
September 20, 1963 - L
September 24, 1963 - M

Senegal
September 20, 1963 - W
September 23, 1963 - L
October 9, 1963 - M

Sierra Leone
September 4, 1963 - L
September 9, 1963 - M
September 11, 1963 - W

Somalia
August 19, 1963 - W,M

Spain
August 13, 1963 - W
August 14, 1963 - L

Sudan
August 9, 1963 - W,L,M

Sweden
August 12, 1963 - W,L,M

Switzerland
August 26, 1963 - W,L,M

Syria Arab Rep.
August 13, 1963 - W,L,M

Tanzania
September 16, 1963 - L
September 18, 1963 - W
September 20, 1963 - M

Thailand
August 8, 1963 - W,L,M

Togo
September 18, 1963 - W

Trinidad and Tobago
August 12, 1963 - W,L
August 13, 1963 - M

Tunisia
August 8, 1963 - W
August 12, 1963 - L
August 13, 1963 - M

November 21, 1963 - W,L,M

February 24, 1966 - W

July 20, 1964 - W
August 4, 1964 - L
August 21, 1964 - M
November 10, 1965 - L
November 15, 1965 - W⁴/_L
February 8, 1966 - M
October 14, 1963 - W,L,M

December 12, 1963 - W,L,M

December 27, 1963 - W

July 3, 1964 - L
July 9, 1964 - W
November 27, 1964 - M

May 6, 1964 - L
May 12, 1964 - M
June 2, 1964 - W

February 21, 1964 - L
March 4, 1964 - W
April 29, 1964 - M

December 17, 1964 - W,L

March 4, 1966 - W,L
March 28, 1966 - M
December 9, 1963 - W,L,M

January 16, 1964 - W,L,M

June 1, 1964 - W,L,M

February 6, 1964 - L

November 15, 1963 - L
November 21, 1963 - M
November 29, 1964 - W
December 7, 1964 - W

July 14, 1964 - W
July 16, 1964 - L
August 6, 1964 - M
May 26, 1965 - L,M
June 3, 1965 - W

-5-

Turkey	July 8, 1965 - W,L,M
August 9, 1963 - W,L,M	
Uganda	March 24, 1964 - L
August 29, 1963 - W,L	April 2, 1964 - W
Union of Soviet Socialist Reps.	October 10, 1963 - W,L,M
August 5, 1963 - M	
United Arab Rep.	January 10, 1964 ⁴ - W,L,M
August 8, 1963 - W,L,M	
United Kingdom	October 10, 1963 - W,L,M
August 5, 1963 - M	
United States	October 10, 1963 - W,L,M
August 5, 1963 - M	
Upper Volta	
- August 30, 1963 - W	
Uruguay	February 25, 1963 - L
August 12, 1963 - W	
September 27, 1963 - L,M	
Ukrainian Soviet Socialist Rep.	December 30, 1963 - M ^{1/}
October 8, 1963 - M	
Venezuela	February 22, 1965 - M
August 16, 1963 - W,M	March 3, 1965 - L
August 20, 1963 - L	March 29, 1965 - W
Viet Nam	
October 1, 1963 - W	
Western Samoa	January 15, 1965 - W
September 6, 1963 - W,M	January 19, 1965 - L
September 5, 1963 - L	February 8, 1965 - M
Yemen Arab Rep.	
August 13, 1963 - M	
September 6, 1963 - W	
Yugoslavia	January 15, 1964 - L
August 8, 1963 - W,L,M	January 31, 1964 - M
	April 3, 1964 - W

- 1/ The United States considers the reported signature and deposit of ratification at Moscow by the Byelorussian SSR and the Ukrainian SSR as already covered by the signature and deposit of ratification by the USSR.
- 2/ United States does not accept notification of signature and deposit of ratification.
- 3/ Applicable to Land Berlin.
- 4/ With a statement.
- 5/ Including Surinam and the Netherlands Antilles.
- 6/ Rwanda signed and deposited ratification in Washington and should only be counted once when counting parties to the treaty.

-6-

Accessions deposited

Central African Rep.
 December 22, 1964 - W
 August 24, 1965 - L
 September 25, 1965 - M

Kenya
 June 10, 1965 - L
 June 11, 1965 - W
 June 30, 1965 - M

Rwanda⁶
 October 22, 1963 - L
 December 16, 1963 - M

South Africa
 October 10, 1963 - W,L
 November 22, 1963 - M

Swaziland
 May 29, 1969 - W,L
 June 3, 1969 - M

Notification of succession

Botswana	Fiji - July 18, 1972 - W
January 5, 1968 - M	July 14, 1972 - L
February 14, 1968 - L	Bahamas, The - August 13, 1976 - W
March 4, 1968 - W	
Gambia, The	
April 27, 1965 - W,M	
May 6, 1965 - L	
Malawi	
November 26, 1964 - W,M	
January 7, 1965 - L	
Malta	
November 25, 1964 - W,M	
December 1, 1964 - L	
Mauritius	
April 30, 1969 - W	
May 12, 1969 - L	
May 19, 1969 - M	
Singapore	
July 12, 1968 - W,M	
July 23, 1968 - L	
Zambia	
January 11, 1965 - W,M	
February 8, 1965 - L	
Tonga	
July 7, 1971 - W	

MULTILATERAL

Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies

*Done at Washington, London, and Moscow January 27, 1967;
Ratification advised by the Senate of the United States of America
April 25, 1967;
Ratified by the President of the United States of America May 24,
1967;
Ratification of the United States of America deposited at Washing-
ton, London, and Moscow October 10, 1967;
Proclaimed by the President of the United States of America Octo-
ber 10, 1967;
Entered into force October 10, 1967.*

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA A PROCLAMATION

WHEREAS the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, was signed at Washington, London, and Moscow on January 27, 1967 in behalf of the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics and was signed at one or more of the three capitals in behalf of a number of other States;

WHEREAS the text of the Treaty, in the English, Russian, French, Spanish, and Chinese languages, as certified by the Department of State of the United States of America, is word for word as follows:

TREATY ON PRINCIPLES GOVERNING THE ACTIVITIES OF STATES
IN THE EXPLORATION AND USE OF OUTER SPACE,
INCLUDING THE MOON AND OTHER CELESTIAL BODIES

The States Parties to this Treaty,

Inspired by the great prospects opening up before mankind
as a result of man's entry into outer space,

Recognizing the common interest of all mankind in the progress
of the exploration and use of outer space for peaceful purposes,

Believing that the exploration and use of outer space should
be carried on for the benefit of all peoples irrespective of the
degree of their economic or scientific development,

Desiring to contribute to broad international co-operation in
the scientific as well as the legal aspects of the exploration and
use of outer space for peaceful purposes,

Believing that such co-operation will contribute to the
development of mutual understanding and to the strengthening of
friendly relations between States and peoples,

Recalling resolution 1962 (XVIII), entitled "Declaration of
Legal Principles Governing the Activities of States in the
Exploration and Use of Outer Space", which was adopted unanimously
by the United Nations General Assembly on 13 December 1963,

Recalling resolution,1884 (XVIII), calling upon States to refrain from placing in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction or from installing such weapons on celestial bodies, which was adopted unanimously by the United Nations General Assembly on 17 October 1963,

Taking account of United Nations General Assembly resolution 110 (II) of 3 November 1947, which condemned propaganda designed or likely to provoke or encourage any threat to the peace, breach of the peace or act of aggression, and considering that the aforementioned resolution is applicable to outer space,

Convinced that a Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, will further the Purposes and Principles of the Charter of the United Nations, [1]

Have agreed on the following:

Article I

The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.

Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States without

¹ TS 993, 59 Stat. 1031.

discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.

There shall be freedom of scientific investigation in outer space, including the moon and other celestial bodies, and States shall facilitate and encourage international co-operation in such investigation.

Article II

Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.

Article III

States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international co-operation and understanding.

Article IV

States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.

The moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the moon and other celestial bodies shall also not be prohibited.

Article V

States Parties to the Treaty shall regard astronauts as envoys of mankind in outer space and shall render to them all possible assistance in the event of accident, distress, or emergency landing on the territory of another State Party or on the high seas. When astronauts make such a landing, they shall be safely and promptly returned to the State of registry of their space vehicle.

In carrying on activities in outer space and on celestial bodies, the astronauts of one State Party shall render all possible assistance to the astronauts of other States Parties.

States Parties to the Treaty shall immediately inform the other States Parties to the Treaty or the Secretary-General of the United Nations of any phenomena they discover in outer space, including the moon and other celestial bodies, which could constitute a danger to the life or health of astronauts.

Article VI

States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty. When activities are carried on in outer space, including the moon and other celestial bodies, by an international organization, responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization.

Article VII

Each State Party to the Treaty that launches or procures the launching of an object into outer space, including the moon and other celestial bodies, and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the moon and other celestial bodies.

Article VIII

A State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body. Ownership of objects launched into outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a celestial body or by their return to the Earth. Such objects or component parts found beyond the limits of the State Party to the Treaty on whose registry they are carried shall be returned to that State Party, which shall, upon request, furnish identifying data prior to their return.

Article IX

In the exploration and use of outer space, including the moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of co-operation and mutual assistance and shall conduct all their activities in outer space, including the moon and other celestial bodies, with due regard to the corresponding interests of all other States Parties to the Treaty. States Parties to the Treaty shall pursue studies of outer space, including the moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose. If a State Party to the Treaty has

reason to believe that an activity or experiment planned by it or its nationals in outer space, including the moon and other celestial bodies, would cause potentially harmful interference with activities of other States Parties in the peaceful exploration and use of outer space, including the moon and other celestial bodies, it shall undertake appropriate international consultations before proceeding with any such activity or experiment. A State Party to the Treaty which has reason to believe that an activity or experiment planned by another State Party in outer space, including the moon and other celestial bodies, would cause potentially harmful interference with activities in the peaceful exploration and use of outer space, including the moon and other celestial bodies, may request consultation concerning the activity or experiment.

Article X

In order to promote international co-operation in the exploration and use of outer space, including the moon and other celestial bodies, in conformity with the purposes of this Treaty, the States Parties to the Treaty shall consider on a basis of equality any requests by other States Parties to the Treaty to be afforded an opportunity to observe the flight of space objects launched by those States.

The nature of such an opportunity for observation and the conditions under which it could be afforded shall be determined by agreement between the States concerned.

Article XI

In order to promote international co-operation in the peaceful exploration and use of outer space, States Parties to the Treaty conducting activities in outer space, including the moon and other celestial bodies, agree to inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such activities. On receiving the said information, the Secretary-General of the United Nations should be prepared to disseminate it immediately and effectively.

Article XII

All stations, installations, equipment and space vehicles on the moon and other celestial bodies shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity. Such representatives shall give reasonable advance notice of a projected visit, in order that appropriate consultations may be held and that maximum precautions may be taken to assure safety and to avoid interference with normal operations in the facility to be visited.

Article XIII

The provisions of this Treaty shall apply to the activities of States Parties to the Treaty in the exploration and use of outer space, including the moon and other celestial bodies, whether such

activities are carried on by a single State Party to the Treaty or jointly with other States, including cases where they are carried on within the framework of international inter-governmental organizations.

Any practical questions arising in connection with activities carried on by international inter-governmental organizations in the exploration and use of outer space, including the moon and other celestial bodies, shall be resolved by the States Parties to the Treaty either with the appropriate international organization or with one or more States members of that international organization, which are Parties to this Treaty.

Article XIV

1. This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland and the Union of Soviet Socialist Republics, which are hereby designated the Depositary Governments.

3. This Treaty shall enter into force upon the deposit of instruments of ratification by five Governments including the Governments designated as Depositary Governments under this Treaty.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Treaty, the date of its entry into force and other notices.

6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

Article XV

Any State Party to the Treaty may propose amendments to this Treaty. Amendments shall enter into force for each State Party to the Treaty accepting the amendments upon their acceptance by a majority of the States Parties to the Treaty and thereafter for each remaining State Party to the Treaty on the date of acceptance by it.

Article XVI

Any State Party to the Treaty may give notice of its withdrawal from the Treaty one year after its entry into force by written notification to the Depositary Governments. Such withdrawal shall take effect one year from the date of receipt of this notification.

Article XVII

This Treaty, of which the English, Russian, French, Spanish and Chinese texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

Treaty on principles governing the activities of states in the exploration and use of outer space, including the moon and other celestial bodies. Opened for signature at Washington, London, and Moscow, January 27, 1967 (TIAS 6347). Entered into force October 10, 1967.

Total as of August 19, 1976:

Signatures: 90 plus the Ukrainian S.S.R. & Byelorussian S.S.R.

Ratifications: 55 plus the Byelorussian S.S.R. & Ukrainian S.S.R.

Accessions: 11.

Notification that it continues to be bound: 4.

THE OUTER SPACE TREATY

Country	Washington		Moscow ¹		London ¹	
	Signature	Ratification	Signature	Ratification	Signature	Ratification
United States	Jan. 27, 1967	Oct. 10, 1967	Jan. 27, 1967	Oct. 10, 1967	Jan. 27, 1967	Oct. 10, 1967
United Kingdom	do	do. ²	do	do. ²	do	Do. ²
U.S.S.R.	do	Oct. 10, 1967	do	do	do	Do.
Argentina	do		Jan. 30, 1967			
Afghanistan	do	Mar. 26, 1969	Apr. 18, 1967	Mar. 26, 1969		
Australia	do	Oct. 10, 1967		Oct. 10, 1967		Do.
Austria	Feb. 20, 1967	Feb. 26, 1968	Feb. 20, 1967	Feb. 26, 1968	Feb. 20, 1967	Feb. 26, 1968
Belgium	Feb. 2, 1967	Mar. 30, 1973	Jan. 27, 1967	Mar. 31, 1973	Jan. 27, 1967	Mar. 31, 1973
Bolivia	Jan. 27, 1967					
Botswana	do					
Brazil	Feb. 2, 1967	Mar. 5, 1969 ³	Jan. 30, 1967	Mar. 5, 1969	Feb. 2, 1967 ³	Mar. 5, 1969
Bulgaria	Jan. 27, 1967	Apr. 11, 1967	Jan. 27, 1967	Mar. 28, 1967	Jan. 27, 1967	Apr. 19, 1967
Burma	May 22, 1967	Mar. 18, 1970	May 22, 1967	Mar. 18, 1970	May 22, 1967	Mar. 18, 1970
Burundi	Jan. 27, 1967					
Byelorussian Soviet Socialist Republic			Feb. 10, 1967 ⁴	Oct. 31, 1967		
Cameroon	Jan. 27, 1967					
Canada	do	Oct. 10, 1967	Jan. 27, 1967	Oct. 10, 1967	Jan. 27, 1967	Oct. 10, 1967
Central African Republic	do					
Ceylon					Mar. 10, 1967	
Chile	Jan. 27, 1967		Feb. 20, 1967		Feb. 3, 1967	
China, Republic of	do	July 24, 1970				
Colombia	do					
Cyprus	do	July 5, 1972	Feb. 15, 1967	Sept. 20, 1972	Feb. 16, 1967	July 5, 1972
Czechoslovakia	do	May 22, 1967	Jan. 27, 1967	May 18, 1967	Jan. 27, 1967	May 11, 1967
Denmark	do	Oct. 10, 1967	do	Oct. 10, 1967	do	Oct. 10, 1967
Dominican Republic	do	Nov. 21, 1968				
Ecuador	do	Mar. 7, 1969	June 7, 1967		May 16, 1967	
Egypt	do	Oct. 10, 1967	Jan. 27, 1967	Jan. 23, 1968		
El Salvador	do	Jan. 15, 1969				
Ethiopia	do		Feb. 10, 1967		Jan. 27, 1967	
Finland	do	July 12, 1967	Jan. 27, 1967	July 12, 1967	do	July 12, 1967
France	Sept. 25, 1967	Aug. 5, 1970	Sept. 25, 1967	Aug. 5, 1970	Sept. 25, 1967	Aug. 5, 1970
Gambia					June 2, 1967	
German Democratic Republic			Jan. 27, 1967 ⁵	Feb. 2, 1967		
Germany, Federal Republic	Jan. 27, 1967	Feb. 10, 1971 ⁶	do		Jan. 27, 1967 ⁶	Feb. 10, 1971
Ghana	do		Feb. 15, 1967		Mar. 3, 1967	
Greece	do					Jan. 19, 1971
Guyana	Feb. 3, 1967					
Haiti	Jan. 27, 1967					
Honduras	do					
Holy See					Apr. 5, 1967	
Hungary	Jan. 27, 1967	June 26, 1967	Jan. 27, 1967	June 26, 1967	Jan. 27, 1967	June 26, 1967
Iceland	do	Feb. 5, 1968	do	Feb. 5, 1968	do	Feb. 5, 1968
India	Mar. 3, 1967		Mar. 3, 1967		Mar. 3, 1967	
Indonesia	Jan. 27, 1967		Jan. 30, 1967		Feb. 14, 1967	
Iran					Jan. 27, 1967	
Iraq	Feb. 27, 1967		Mar. 9, 1967	Dec. 4, 1968	Feb. 27, 1967	Sept. 23, 1969
Ireland	Jan. 27, 1967	July 17, 1968			Jan. 27, 1967	July 19, 1968
Israel	do		Jan. 27, 1967		do	
Italy	Jan. 27, 1967	May 4, 1972	do	May 4, 1972	Jan. 27, 1967	May 4, 1972
Jamaica	June 29, 1967	Aug. 6, 1970	June 29, 1967	Aug. 21, 1970	June 29, 1967	Aug. 10, 1970
Japan	Jan. 27, 1967	Oct. 10, 1967	Jan. 27, 1967	Oct. 10, 1967	Jan. 27, 1967	Oct. 10, 1967
Jordan	Feb. 2, 1967					
Korea	Jan. 27, 1967	Oct. 13, 1967				
Laos	do	Nov. 29, 1972	Feb. 2, 1967	Nov. 27, 1972	Jan. 30, 1967	Jan. 15, 1973
Lebanon	Feb. 23, 1967	June 30, 1969	Feb. 23, 1967	Mar. 31, 1969	Feb. 23, 1967	Mar. 31, 1969
Lesotho	Jan. 27, 1967					
Luxembourg	do		Jan. 27, 1967		Jan. 31, 1967	
Malaysia	Feb. 20, 1967		May 3, 1967		Feb. 21, 1967	
Mexico	Jan. 27, 1967	Jan. 31, 1968	Jan. 27, 1967	Jan. 31, 1968	Jan. 27, 1967	Jan. 31, 1968
Mongolia			do	Oct. 10, 1967		
Nepal	Feb. 3, 1967	Nov. 22, 1967	Feb. 3, 1967	Oct. 16, 1967	Feb. 6, 1967	Oct. 10, 1967
Netherlands	Feb. 10, 1967	Oct. 10, 1969 ⁷	Feb. 10, 1967	Oct. 10, 1969 ⁷	Oct. 10, 1967 ⁷	Oct. 10, 1969
New Zealand	Jan. 27, 1967	May 31, 1968	Jan. 27, 1967	May 31, 1968	Jan. 27, 1967	May 31, 1968
Nicaragua	do				Feb. 13, 1967	

See footnotes at end of table.

THE OUTER SPACE TREATY—Continued

Country	Washington		Moscow ¹		London ¹	
	Signature	Ratification	Signature	Ratification	Signature	Ratification
Niger.....	Feb. 1, 1967	May 3, 1967				Apr. 17, 1967
Norway.....	Feb. 3, 1967	July 1, 1969	Feb. 3, 1967	July 1, 1969	Feb. 3, 1967	July 1, 1969
Pakistan.....	Sept. 12, 1967	Apr. 8, 1968	Sept. 12, 1967	Apr. 8, 1968	Sept. 12, 1967	Apr. 8, 1968
Panama.....	Jan. 27, 1967					
Peru.....	June 30, 1967					
Philippines.....	Jan. 27, 1967		Apr. 29, 1967		Jan. 27, 1967	
Poland.....	do.....	Jan. 30, 1968	Jan. 27, 1967	Jan. 30, 1968	do.....	Jan. 30, 1968
Romania.....	do.....	Apr. 9, 1968	do.....	Apr. 9, 1968	do.....	Apr. 9, 1968
Rwanda.....	do.....					
San Marino.....	Apr. 21, 1967	Oct. 29, 1968	June 6, 1967	Nov. 21, 1968	Apr. 24, 1967	Feb. 3, 1969
Sierra Leone.....	May 16, 1967	July 14, 1967	Jan. 27, 1967	July 13, 1967	Jan. 27, 1967	Oct. 25, 1967
Somalia.....	Feb. 2, 1967					
South Africa.....	Mar. 1, 1967	Sept. 30, 1968				Oct. 8, 1968
Sweden.....	Jan. 27, 1967	Oct. 11, 1967	Jan. 27, 1967	Oct. 11, 1967	Jan. 27, 1967	Oct. 11, 1967
Switzerland.....	do.....	Dec. 18, 1969	Jan. 30, 1967	Dec. 18, 1969	do.....	Dec. 18, 1969
Thailand.....	do.....	Sept. 10, 1968	Jan. 27, 1967	Sept. 9, 1968	do.....	Sept. 5, 1963
Togo.....	do.....					
Trinidad and Tobago.....	Sept. 28, 1967		Aug. 17, 1967		July 24, 1967	
Tunisia.....	Jan. 27, 1967	Apr. 17, 1968	Feb. 15, 1967	Apr. 4, 1968	Jan. 27, 1967	Mar. 28, 1968
Turkey.....	do.....	Mar. 27, 1968	Jan. 27, 1967	Mar. 27, 1968	do.....	Mar. 27, 1968
Ukrainian Soviet Socialist Republic.....			Feb. 10, 1967 ⁴	Oct. 31, 1967		
Upper Volta.....	Mar. 3, 1967	June 18, 1968				
Uruguay.....	Jan. 27, 1967	Aug. 31, 1970	Jan. 30, 1967			
Venezuela.....	do.....	Mar. 3, 1970				
Vietnam.....	do.....					
Yugoslavia.....	do.....		Jan. 27, 1967		Jan. 27, 1967	
Zaire.....	do.....		Apr. 29, 1967		May 4, 1967	
	Accession		Accession		Accession	
Morocco.....	Dec. 22, 1967		Dec. 21, 1967		Dec. 21, 1967	
Uganda.....	Apr. 24, 1968					
Libya.....	July 3, 1968					
Nigeria.....					Nov. 14, 1967	
Malagasy Republic.....	Aug. 22, 1968 ⁸					
Barbados.....	Sept. 12, 1968					
Mali.....			June 11, 1968			
Spain.....	Dec. 7, 1968				Nov. 27, 1968	
Syrian Arab Republic.....			Nov. 19, 1968			
Kuwait.....	June 7, 1972		July 4, 1972		June 20, 1972	
Zambia.....	Aug. 20, 1973		Aug. 21, 1973		Aug. 28, 1973	
Singapore.....	Sept. 10, 1976					
Date of notification that it continues to be bound						
	Washington		Moscow		London	
Mauritius.....	Apr. 16, 1969		May 13, 1969		Apr. 21, 1969	
Tonga.....	July 7, 1971				June 22, 1971	
Fiji.....	July 18, 1972					
Bahamas.....	Aug. 13, 1976				July 14, 1972	

¹ The listings for signings in Moscow and London are based upon official reports received.

² Extended to the territories under the territorial sovereignty of the United Kingdom and to Antigua, British Solomon Islands Protectorate, Brunei, Dominica, Grenada, St. Christopher-Nevis-Anguilla, and St. Lucia. Treaty is not applicable to Rhodesia.

³ With a declaration.

⁴ The United States considers this Republic as already covered by the signature affixed to the treaty by the U.S.S.R.

⁵ The United States made a statement regarding this action.

⁶ Applicable to Land Berlin.

⁷ Applicable to Surinam and the Netherlands Antilles.

⁸ With a statement.

MULTILATERAL

Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space

*Done at Washington, London and Moscow April 22, 1968;
Ratification advised by the Senate of the United States of America
October 8, 1968;
Ratified by the President of the United States of America
October 18, 1968;
Ratification of the United States of America deposited at Washington,
London and Moscow December 3, 1968;
Proclaimed by the President of the United States of America
December 3, 1968;
Entered into force December 3, 1968.*

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

WHEREAS the Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched Into Outer Space was signed at Washington, London, and Moscow on April 22, 1968 in behalf of the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics and was signed at one or more of the three capitals in behalf of a number of other States;

WHEREAS a certified copy of the text of the Agreement, in the English, Russian, French, Spanish, and Chinese languages, is word for word as follows:

AGREEMENT ON THE RESCUE OF ASTRONAUTS,
THE RETURN OF ASTRONAUTS AND
THE RETURN OF OBJECTS LAUNCHED INTO OUTER SPACE

The Contracting Parties,

Noting the great importance of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, which calls for the rendering of all possible assistance to astronauts in the event of accident, distress or emergency landing, the prompt and safe return of astronauts, and the return of objects launched into outer space,

Desiring to develop and give further concrete expression to these duties,

Wishing to promote international co-operation in the peaceful exploration and use of outer space,

Prompted by sentiments of humanity,

Have agreed on the following:

Article 1

Each Contracting Party which receives information or discovers that the personnel of a spacecraft have suffered accident or are experiencing conditions of distress or have made an emergency or unintended landing in territory under its jurisdiction or on the high seas or in any other place not under the jurisdiction of any State shall immediately:

(a) Notify the launching authority or, if it cannot identify and immediately communicate with the launching authority, immediately make a public announcement by all appropriate means of communication at its disposal;

(b) Notify the Secretary-General of the United Nations, who should disseminate the information without delay by all appropriate means of communication at his disposal.

Article 2

If, owing to accident, distress, emergency or unintended landing, the personnel of a spacecraft land in territory under the jurisdiction of a Contracting Party, it shall immediately take all possible steps to rescue them and render them all necessary assistance. It shall inform the launching authority and also the Secretary-General of the United Nations of the steps it is taking and of their progress. If assistance by the launching authority would help to effect a prompt rescue or would contribute substantially to the effectiveness of search and rescue operations, the launching authority shall co-operate with the Contracting Party with a view to the effective conduct of search and rescue operations. Such operations shall be subject to the

direction and control of the Contracting Party, which shall act in close and continuing consultation with the launching authority.

Article 3

If information is received or it is discovered that the personnel of a spacecraft have alighted on the high seas or in any other place not under the jurisdiction of any State, those Contracting Parties which are in a position to do so shall, if necessary, extend assistance in search and rescue operations for such personnel to assure their speedy rescue. They shall inform the launching authority and the Secretary-General of the United Nations of the steps they are taking and of their progress.

Article 4

If, owing to accident, distress, emergency or unintended landing, the personnel of a spacecraft land in territory under the jurisdiction of a Contracting Party or have been found on the high seas or in any other place not under the jurisdiction of any State, they shall be safely and promptly returned to representatives of the launching authority.

Article 5

1. Each Contracting Party which receives information or discovers that a space object or its component parts has returned to Earth in territory under its jurisdiction or on the high seas or in any other place not under the jurisdiction of any State, shall notify the launching authority and the Secretary-General of the United Nations.

2. Each Contracting Party having jurisdiction over the territory on which a space object or its component parts has been discovered shall, upon the request of the launching authority and with assistance from that authority if requested, take such steps as it finds practicable to recover the object or component parts.

3. Upon request of the launching authority, objects launched into outer space or their component parts found beyond the territorial limits of the launching authority shall be returned to or held at the disposal of representatives of the launching authority, which shall, upon request, furnish identifying data prior to their return.

4. Notwithstanding paragraphs 2 and 3 of this article, a Contracting Party which has reason to believe that a space object or its component parts discovered in territory under its jurisdiction, or recovered by it elsewhere, is of a hazardous or deleterious nature may so notify the launching authority, which shall immediately take effective steps, under the direction and control of the said Contracting Party, to eliminate possible danger of harm.

5. Expenses incurred in fulfilling obligations to recover and return a space object or its component parts under paragraphs 2 and 3 of this article shall be borne by the launching authority.

Article 6

For the purposes of this Agreement, the term "launching authority" shall refer to the State responsible for launching,

or, where an international inter-governmental organization is responsible for launching, that organization, provided that that organization declares its acceptance of the rights and obligations provided for in this Agreement and a majority of the States members of that organization are Contracting Parties to this Agreement and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Article 7

1. This Agreement shall be open to all States for signature. Any State which does not sign this Agreement before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Agreement shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland and the Union of Soviet Socialist Republics, which are hereby designated the Depositary Governments.

3. This Agreement shall enter into force upon the deposit of instruments of ratification by five Governments including the Governments designated as Depositary Governments under this Agreement.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Agreement, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Agreement, the date of its entry into force and other notices.

6. This Agreement shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

Article 8

Any State Party to the Agreement may propose amendments to this Agreement. Amendments shall enter into force for each State Party to the Agreement accepting the amendments upon their acceptance by a majority of the States Parties to the Agreement and thereafter for each remaining State Party to the Agreement on the date of acceptance by it.

Article 9

Any State Party to the Agreement may give notice of its withdrawal from the Agreement one year after its entry into force by written notification to the Depositary Governments. Such withdrawal shall take effect one year from the date of receipt of this notification.

Article 10

This Agreement, of which the English, Russian, French, Spanish and Chinese texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Agreement shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

Agreement on the rescue of astronauts, the return of astronauts, and the return of objects launched into outer space. Opened for signature at Washington, London, and Moscow April 22, 1968 (TIAS 6599). Entered into force December 3, 1968.

Totals as of August 19, 1976 :

Signatures: 79 plus the Ukrainian S.S.R. and Byelorussian S.S.R.

Ratifications: 48 plus the Byelorussian S.S.R. and Ukrainian S.S.R.

Accessions: 14

Notification that it continues to be bound: 3

Acceptance by International Organizations: European Space Agency.

THE ASTRONAUT AGREEMENT

Country	Washington		Moscow ¹		London ¹	
	Signature	Ratification	Signature	Ratification	Signature	Ratification
United States	Apr. 22, 1968	Dec. 3, 1968	Apr. 22, 1968	Dec. 3, 1968	Apr. 22, 1968	Dec. 3, 1968
United Kingdom	do	do. ²	do	do. ²	do	Do. ²
U.S.S.R.	do	do	do	do	do	Do.
Argentina	do	Mar. 26, 1969	May 28, 1968	Mar. 26, 1969	May 2, 1968	Mar. 26, 1969
Australia	do		Apr. 22, 1968		Apr. 22, 1968	
Austria	do	Feb. 19, 1970	do	Feb. 19, 1970	do	Feb. 19, 1970
Belgium	Aug. 14, 1968		Aug. 14, 1968		Aug. 14, 1968	
Bolivia	Apr. 22, 1968					
Bulgaria	do	Apr. 16, 1969	Apr. 22, 1968	Apr. 2, 1969	Apr. 22, 1968	Apr. 16, 1969
Burma	Aug. 21, 1968		Aug. 21, 1968		Aug. 21, 1968	
Byelorussian Soviet Socialist Republic			May 14, 1968 ³	Dec. 2, 1968 ³		
Cameroon			June 14, 1968		Apr. 22, 1968	Jan. 10, 1969
Canada	Apr. 25, 1968	Feb. 20, 1975	Apr. 25, 1968		Apr. 25, 1968	Feb. 20, 1975
Chile	Apr. 22, 1968		May 16, 1968		Apr. 22, 1968	
China, Republic of	do	June 15, 1973				
Colombia	Apr. 23, 1968					
Costa Rica	Apr. 24, 1968					
Cyprus	May 9, 1968	Jan. 20, 1971	July 9, 1968	Dec. 17, 1970	May 7, 1963	Dec. 17, 1970
Czechoslovakia	Apr. 22, 1968	Feb. 18, 1969	Apr. 22, 1968	Feb. 18, 1969	Apr. 22, 1968	Feb. 18, 1969
Denmark	do	May 6, 1969	do	May 6, 1969	do	May 6, 1969
Dominican Republic	do					
Ecuador	do	Mar. 7, 1969				
Egypt			July 4, 1968	Dec. 11, 1968	May 10, 1968	
El Salvador	Apr. 22, 1968	Feb. 19, 1970				
Finland	do	Sept. 10, 1979	Apr. 22, 1968	Sept. 10, 1970	Apr. 22, 1968	Sept. 10, 1970
Gambia	Sept. 20, 1968	(See under accession.)				
German Democratic Republic			Apr. 22, 1968 ⁴	Dec. 11, 1968		
Germany, Federal Republic	Aug. 20, 1968	Feb. 17, 1972 ⁵	Aug. 20, 1968		Aug. 20, 1968	Feb. 17, 1972 ⁵
Ghana	Apr. 22, 1968		Apr. 22, 1968		May 6, 1968	
Greece	June 11, 1968				Oct. 4, 1968	July 7, 1975
Guyana						May 30, 1969
Haiti	Apr. 22, 1968					
Hungary	do	June 4, 1969	Apr. 22, 1968	June 4, 1969	Apr. 22, 1968	June 4, 1969
Iceland	do	Dec. 4, 1969	do	Dec. 4, 1969	do	Dec. 4, 1969
Iran	do	Dec. 21, 1970	do	Dec. 24, 1970	do	Dec. 21, 1970
Ireland	do	Sept. 6, 1968	do		do	Aug. 29, 1968
Israel	do	Dec. 19, 1969			Apr. 26, 1968	Jan. 6, 1970
Italy	do		Apr. 22, 1968		Apr. 22, 1968	
Jamaica	July 23, 1968		July 23, 1968		July 23, 1968	
Jordan					July 24, 1968	
Korea	May 9, 1968	Apr. 4, 1969				
Laos	Apr. 22, 1968	Nov. 29, 1972	Apr. 22, 1968	Nov. 27, 1972	Apr. 22, 1968	Jan. 15, 1973
Lebanon	do	June 30, 1969	Apr. 30, 1968	Mar. 31, 1969	Apr. 30, 1968	Mar. 31, 1969
Lesotho	July 18, 1968					
Luxembourg	Aug. 14, 1968		Aug. 14, 1968		Aug. 14, 1968	
Malagasy Republic	June 25, 1968	Feb. 11, 1969				
Malaysia	June 18, 1968		July 4, 1968		July 29, 1968	
Maldives Islands	Apr. 22, 1968	Apr. 3, 1970				
Malta					May 29, 1968	
Mexico	July 15, 1968	Mar. 11, 1969	July 15, 1968	Mar. 11, 1969	July 15, 1968	Mar. 11, 1969
Monaco					June 13, 1968	
Mongolia			Apr. 22, 1968	Jan. 31, 1969		
Morocco	Apr. 22, 1968	Dec. 21, 1970	June 7, 1968		June 14, 1968	Nov. 20, 1970
Nepal	do	July 11, 1968	Apr. 22, 1968	July 26, 1968	Apr. 22, 1968	Feb. 3, 1969
Netherlands	Aug. 14, 1968		Aug. 14, 1968		Aug. 14, 1968	
New Zealand	Apr. 24, 1968	July 8, 1969	Apr. 24, 1968	June 8, 1969	Apr. 24, 1968	July 8, 1969
Nicaragua	Apr. 22, 1968				June 13, 1968	
Niger	do	Jan. 15, 1969				Feb. 14, 1969
Nigeria	May 3, 1968		June 14, 1968	Feb. 26, 1973	July 26, 1968	Mar. 23, 1973
Norway	Apr. 22, 1968	Apr. 20, 1970	Apr. 22, 1968	Apr. 20, 1970	Apr. 22, 1968	Apr. 20, 1970
Philippines	Apr. 24, 1968					

Footnotes at end of table.

THE ASTRONAUT AGREEMENT—Continued

Country	Washington		Moscow ¹		London ¹	
	Signature	Ratification	Signature	Ratification	Signature	Ratification
Poland.....	Apr. 22, 1968	Feb. 14, 1969	Apr. 22, 1968	Feb. 14, 1969	Apr. 22, 1968	Feb. 14, 1969
Portugal.....	do.	Mar. 25, 1970				
Romania.....	do.	June 28, 1971	Apr. 22, 1968		Apr. 22, 1968	June 28, 1971
Rwanda.....	do.					
San Marino.....	Nov. 7, 1968	Aug. 31, 1970	Nov. 21, 1968	Aug. 20, 1970		Aug. 10, 1970
Senegal.....					June 26, 1968	
Sierra Leone.....			Apr. 22, 1968		May 20, 1968	
Somali Republic.....	Apr. 22, 1968		do.			
South Africa.....	Aug. 6, 1968	Oct. 6, 1969				Sept. 24, 1969
Switzerland.....	Apr. 22, 1968	Dec. 18, 1969	Apr. 22, 1968	Dec. 18, 1969	Apr. 22, 1968	Dec. 18, 1969
Syrian Arab Republic.....			Oct. 3, 1968	Aug. 14, 1969		
Tunisia.....	Apr. 22, 1968	Feb. 10, 1971	Apr. 24, 1968		Apr. 22, 1968	Feb. 15, 1971
Turkey.....	Nov. 29, 1968		Nov. 29, 1968		Nov. 29, 1968	
Ukrainian Soviet Socialist Republic.....			June 28, 1968 ³	Jan. 16, 1969 ³		
Uruguay.....	Apr. 22, 1968					Feb. 25, 1969
Venezuela.....	do.					
Vietnam.....					May 22, 1968	
Yemen Arab Republic.....			July 23, 1968			
Yugoslavia.....	Apr. 22, 1968	Mar. 1, 1971	Apr. 22, 1968		Apr. 22, 1968	Mar. 1, 1971
Zaire.....	do.				June 25, 1968	
	Accession		Accession		Accession	
Gambia.....			July 26, 1968		Aug. 2, 1968	
Gabon.....	Apr. 2, 1969					
Mauritius.....	Apr. 16, 1969		May 13, 1969		Apr. 21, 1969	
Botswana.....	Apr. 18, 1969		Apr. 10, 1969		Apr. 18, 1969	
Barbados.....			do.		Feb. 20, 1969	
Thailand.....	May 30, 1969		May 26, 1969		May 29, 1969	
Swaziland.....	June 9, 1969		June 17, 1969		June 10, 1969	
Sweden.....	July 21, 1969		July 21, 1969		July 21, 1969	
Iraq.....			Mar. 12, 1970		May 7, 1970	
Kuwait.....	June 7, 1972		July 4, 1972		June 20, 1972	
Brazil.....	Feb. 27, 1973		Feb. 27, 1973		Feb. 27, 1973	
Zambia.....	Aug. 20, 1973		Aug. 21, 1973		Aug. 28, 1973	
Pakistan.....	Oct. 18, 1973		Oct. 17, 1973		Nov. 2, 1973	
France.....	Dec. 31, 1973					
Singapore.....	Sept. 10, 1976					

NOTES

Acceptance by international organization under Article 6: European Space Agency, effective Dec. 31, 1975.

Notification that it continues to be bound: Tonga—Washington, July 7, 1971; London, June 22, 1971. Fiji—Washington July 18, 1972; London, July 14, 1972; Moscow, July 14, 1972. Bahamas—Washington, Aug. 13, 1976.

¹ The listings for signings in Moscow and London are based upon official reports received.

² Extended to Antigua, British Solomon Islands Protectorate, Brunei, Dominica, Grenada, St. Christopher-Nevis-Anguilla, St. Lucia, and territories under the territorial sovereignty of the United Kingdom. Not applicable to Southern Rhodesia.

³ The United States considers this Republic as already covered by the signature and ratification of the treaty by the U.S.S.R.

⁴ The United States made a statement regarding this action.

⁵ Applicable to Land Berlin.

MULTILATERAL

Convention on International Liability for Damage Caused by Space Objects

*Done at Washington, London, and Moscow March 29, 1972;
Ratification advised by the Senate of the United States of America
October 6, 1972;
Ratified by the President of the United States of America May 18,
1973;
Ratification of the United States of America deposited at Wash-
ington, London, and Moscow October 9, 1973;
Proclaimed by the President of the United States of America
November 21, 1973;
Entered into force with respect to the United States of America
October 9, 1973.*

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

CONSIDERING THAT:

The Convention on International Liability for Damage Caused by Space Objects was signed at Washington, London, and Moscow on March 29, 1972 in behalf of the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics, the depositary governments, and was signed at one or more of the three capitals in behalf of a number of other States, a certified copy of which Convention is hereto annexed;

The Senate of the United States of America by its resolution of October 6, 1972, two-thirds of the Senators present concurring therein, gave its advice and consent to the ratification of the Convention;

The President of the United States of America ratified the Convention on May 18, 1973, in pursuance of the advice and consent of the Senate;

The United States of America deposited its instrument of ratification on October 9, 1973, in accordance with the provisions of paragraph 2 of Article XXIV of the Convention; and

Pursuant to the provisions of paragraph 4 of Article XXIV of the Convention, the Convention entered into force for the United States of America on October 9, 1973;

Now, THEREFORE, be it known that I, Richard Nixon, President of the United States of America, proclaim and make public the said Convention to the end that it shall be observed and fulfilled with good faith on and after October 9, 1973 by the United States of America and by the citizens of the United States of America and all other persons subject to the jurisdiction thereof.

IN TESTIMONY WHEREOF, I have signed this proclamation and caused the Seal of the United States of America to be affixed.

DONE at the city of Washington this twenty-first day of November in the year of our Lord one thousand nine hundred [SEAL] seventy-three and of the Independence of the United States of America the one hundred ninety-eighth.

RICHARD NIXON

By the President:

HENRY A. KISSINGER
Secretary of State

CONVENTION ON INTERNATIONAL LIABILITY FOR
DAMAGE CAUSED BY SPACE OBJECTS

The States Parties to this Convention,

Recognizing the common interest of all mankind in furthering the exploration and use of outer space for peaceful purposes,

Recalling the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, ^[1]

Taking into consideration that, notwithstanding the precautionary measures to be taken by States and international intergovernmental organizations involved in the launching of space objects, damage may on occasion be caused by such objects,

Recognizing the need to elaborate effective international rules and procedures concerning liability for damage caused by space objects and to ensure, in particular, the prompt payment under the terms of this Convention of a full and equitable measure of compensation to victims of such damage,

Believing that the establishment of such rules and procedures will contribute to the strengthening of international cooperation in the field of the exploration and use of outer space for peaceful purposes,

Have agreed on the following:

¹ TIAS 6347; 18 UST 2410.

ARTICLE I

For the purposes of this Convention:

(a) The term "damage" means loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations;

(b) The term "launching" includes attempted launching;

(c) The term "launching State" means:

(i) A State which launches or procures the launching of a space object;

(ii) A State from whose territory or facility a space object is launched;

(d) The term "space object" includes component parts of a space object as well as its launch vehicle and parts thereof.

ARTICLE II

A launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth or to aircraft in flight.

ARTICLE III

In the event of damage being caused elsewhere than on the surface of the earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible.

ARTICLE IV

1. In the event of damage being caused elsewhere than on the surface of the earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State, and of damage thereby being caused to a third State or to its natural or juridical persons, the first two States shall be jointly and severally liable to the third State, to the extent indicated by the following:

(a) If the damage has been caused to the third State on the surface of the earth or to aircraft in flight, their liability to the third State shall be absolute;

(b) If the damage has been caused to a space object of the third State or to persons or property on board that space object elsewhere than on the surface of the earth, their liability to the third State shall be based on the fault of either of the first two States or on the fault of persons for whom either is responsible.

2. In all cases of joint and several liability referred to in paragraph 1 of this article, the burden of compensation for the damage shall be apportioned between the first two States in accordance with the extent to which they were at fault; if the extent of the fault of each of these States cannot be established, the burden of compensation shall be apportioned equally between them. Such apportionment shall be without prejudice to the right of the third State to seek the entire compensation due under this Convention from any or all of the launching States which are jointly and severally liable.

ARTICLE V

1. Whenever two or more States jointly launch a space object, they shall be jointly and severally liable for any damage caused.

2. A launching State which has paid compensation for damage shall have the right to present a claim for indemnification to other participants in the joint launching. The participants in a joint launching may conclude agreements regarding the apportioning among themselves of the financial obligation in respect of which they are jointly and severally liable. Such agreements shall be without prejudice to the right of a State sustaining damage to seek the entire compensation due under this Convention from any or all of the launching States which are jointly and severally liable.

3. A State from whose territory or facility a space object is launched shall be regarded as a participant in a joint launching.

ARTICLE VI

1. Subject to the provisions of paragraph 2 of this article, exoneration from absolute liability shall be granted to the extent that a launching State establishes that the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage on the part of a claimant State or of natural or juridical persons it represents.

2. No exoneration whatever shall be granted in cases where the damage has resulted from activities conducted by a launching State which are not in conformity with international law including,

in particular, the Charter of the United Nations ^[1] and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

ARTICLE VII

The provisions of this Convention shall not apply to damage caused by a space object of a launching State to:

- (a) Nationals of that launching State;
- (b) Foreign nationals during such time as they are participating in the operation of that space object from the time of its launching or at any stage thereafter until its descent, or during such time as they are in the immediate vicinity of a planned launching or recovery area as the result of an invitation by that launching State.

ARTICLE VIII

1. A State which suffers damage, or whose natural or juridical persons suffer damage, may present to a launching State a claim for compensation for such damage.

2. If the State of nationality has not presented a claim, another State may, in respect of damage sustained in its territory by any natural or juridical person, present a claim to a launching State.

3. If neither the State of nationality nor the State in whose territory the damage was sustained has presented a claim or notified its intention of presenting a claim, another State may, in respect of damage sustained by its permanent residents, present a claim to a launching State.

¹ TS 993; 59 Stat. 1031.

ARTICLE IX

A claim for compensation for damage shall be presented to a launching State through diplomatic channels. If a State does not maintain diplomatic relations with the launching State concerned, it may request another State to present its claim to that launching State or otherwise represent its interests under this Convention. It may also present its claim through the Secretary-General of the United Nations, provided the claimant State and the launching State are both Members of the United Nations.

ARTICLE X

1. A claim for compensation for damage may be presented to a launching State not later than one year following the date of the occurrence of the damage or the identification of the launching State which is liable.

2. If, however, a State does not know of the occurrence of the damage or has not been able to identify the launching State which is liable, it may present a claim within one year following the date on which it learned of the aforementioned facts; however, this period shall in no event exceed one year following the date on which the State could reasonably be expected to have learned of the facts through the exercise of due diligence.

3. The time-limits specified in paragraphs 1 and 2 of this article shall apply even if the full extent of the damage may not be known. In this event, however, the claimant State shall be entitled to revise the claim and submit additional documentation after the expiration of such time-limits until one year after the full extent of the damage is known.

ARTICLE XI

1. Presentation of a claim to a launching State for compensation for damage under this Convention shall not require the prior exhaustion of any local remedies which may be available to a claimant State or to natural or juridical persons it represents.

2. Nothing in this Convention shall prevent a State, or natural or juridical persons it might represent, from pursuing a claim in the courts or administrative tribunals or agencies of a launching State. A State shall not, however, be entitled to present a claim under this Convention in respect of the same damage for which a claim is being pursued in the courts or administrative tribunals or agencies of a launching State or under another international agreement which is binding on the States concerned.

ARTICLE XII

The compensation which the launching State shall be liable to pay for damage under this Convention shall be determined in accordance with international law and the principles of justice and equity, in order to provide such reparation in respect of the damage as will restore the person, natural or juridical, State or international organization on whose behalf the claim is presented to the condition which would have existed if the damage had not occurred.

ARTICLE XIII

Unless the claimant State and the State from which compensation is due under this Convention agree on another form of compensation,

the compensation shall be paid in the currency of the claimant State or, if that State so requests, in the currency of the State from which compensation is due.

ARTICLE XIV

If no settlement of a claim is arrived at through diplomatic negotiations as provided for in article IX, within one year from the date on which the claimant State notifies the launching State that it has submitted the documentation of its claim, the parties concerned shall establish a Claims Commission at the request of either party.

ARTICLE XV

1. The Claims Commission shall be composed of three members: one appointed by the claimant State, one appointed by the launching State and the third member, the Chairman, to be chosen by both parties jointly. Each party shall make its appointment within two months of the request for the establishment of the Claims Commission.

2. If no agreement is reached on the choice of the Chairman within four months of the request for the establishment of the Commission, either party may request the Secretary-General of the United Nations to appoint the Chairman within a further period of two months.

ARTICLE XVI

1. If one of the parties does not make its appointment within the stipulated period, the Chairman shall, at the request of the other party, constitute a single-member Claims Commission.

2. Any vacancy which may arise in the Commission for whatever reason shall be filled by the same procedure adopted for the original appointment.

3. The Commission shall determine its own procedure.

4. The Commission shall determine the place or places where it shall sit and all other administrative matters.

5. Except in the case of decisions and awards by a single-member Commission, all decisions and awards of the Commission shall be by majority vote.

ARTICLE XVII

No increase in the membership of the Claims Commission shall take place by reason of two or more claimant States or launching States being joined in any one proceeding before the Commission. The claimant States so joined shall collectively appoint one member of the Commission in the same manner and subject to the same conditions as would be the case for a single claimant State. When two or more launching States are so joined, they shall collectively appoint one member of the Commission in the same way. If the claimant States or the launching States do not make the appointment within the stipulated period, the Chairman shall constitute a single-member Commission.

ARTICLE XVIII

The Claims Commission shall decide the merits of the claim for compensation and determine the amount of compensation payable, if any.

ARTICLE XIX

1. The Claims Commission shall act in accordance with the provisions of article XII.

2. The decision of the Commission shall be final and binding if the parties have so agreed; otherwise the Commission shall render a final and recommendatory award, which the parties shall consider in good faith. The Commission shall state the reasons for its decision or award.

3. The Commission shall give its decision or award as promptly as possible and no later than one year from the date of its establishment, unless an extension of this period is found necessary by the Commission.

4. The Commission shall make its decision or award public. It shall deliver a certified copy of its decision or award to each of the parties and to the Secretary-General of the United Nations.

ARTICLE XX

The expenses in regard to the Claims Commission shall be borne equally by the parties, unless otherwise decided by the Commission.

ARTICLE XXI

If the damage caused by a space object presents a large-scale danger to human life or seriously interferes with the living conditions of the population or the functioning of vital centers, the States Parties, and in particular the launching State, shall examine the possibility of rendering appropriate and rapid assistance to the State which has suffered the damage, when it so requests. However, nothing in this article shall affect the rights or obligations of the States Parties under this Convention.

ARTICLE XXII

1. In this Convention, with the exception of articles XXIV to XXVII, references to States shall be deemed to apply to any international intergovernmental organization which conducts space activities if the organization declares its acceptance of the rights and obligations provided for in this Convention and if a majority of the States members of the organization are States Parties to this Convention and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

2. States members of any such organization which are States Parties to this Convention shall take all appropriate steps to ensure that the organization makes a declaration in accordance with the preceding paragraph.

3. If an international intergovernmental organization is liable for damage by virtue of the provisions of this Convention, that organization and those of its members which are States Parties to this Convention shall be jointly and severally liable; provided, however, that:

(a) Any claim for compensation in respect of such damage shall be first presented to the organization;

(b) Only where the organization has not paid, within a period of six months, any sum agreed or determined to be due as compensation for such damage, may the claimant State invoke the liability of the members which are States Parties to this Convention for the payment of that sum.

4. Any claim, pursuant to the provisions of this Convention, for compensation in respect of damage caused to an organization which has made a declaration in accordance with paragraph 1 of this article shall be presented by a State member of the organization which is a State Party to this Convention.

ARTICLE XXIII

1. The provisions of this Convention shall not affect other international agreements in force in so far as relations between the States Parties to such agreements are concerned.

2. No provision of this Convention shall prevent States from concluding international agreements reaffirming, supplementing or extending its provisions.

ARTICLE XXIV

1. This Convention shall be open to all States for signature. Any State which does not sign this Convention before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Convention shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland and the Union of Soviet Socialist Republics, which are hereby designated the Depositary Governments.

3. This Convention shall enter into force on the deposit of the fifth instrument of ratification.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Convention, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Convention, the date of its entry into force and other notices.

6. This Convention shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

ARTICLE XXV

Any State Party to this Convention may propose amendments to this Convention. Amendments shall enter into force for each State Party to the Convention accepting the amendments upon their acceptance by a majority of the States Parties to the Convention and thereafter for each remaining State Party to the Convention on the date of acceptance by it.

ARTICLE XXVI

Ten years after the entry into force of this Convention, the question of the review of this Convention shall be included in the provisional agenda of the United Nations General Assembly in order to consider, in the light of past application of the Convention, whether it requires revision. However, at any time after the

Convention has been in force for five years, and at the request of one third of the States Parties to the Convention, and with the concurrence of the majority of the States Parties, a conference of the States Parties shall be convened to review this Convention.

ARTICLE XXVII

Any State Party to this Convention may give notice of its withdrawal from the Convention one year after its entry into force by written notification to the Depositary Governments. Such withdrawal shall take effect one year from the date of receipt of this notification.

ARTICLE XXVIII

This Convention, of which the English, Russian, French, Spanish and Chinese texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Convention shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

Convention on international liability for damage caused by space objects. Done at Washington, London and Moscow March 29, 1972. (Senate advice and consent to ratification given October 6, 1972; ratified by the President May 18, 1973; ratification deposited October 9, 1973) (TIAS 7762). Entered into force for the United States October 9, 1973.

Totals as of December 1, 1976:

Signatures: 71 plus the Ukrainian S.S.R. and Byelorussian S.S.R.

Ratifications: 30 plus the Ukrainian S.S.R.

Accessions: 11.

THE SPACE LIABILITY CONVENTION

Country	Washington		Moscow ¹		London ¹	
	Signature	Ratification	Signature	Ratification	Signature	Ratification
United States	Mar. 29, 1972	Oct. 9, 1973	Mar. 29, 1972	Oct. 9, 1973	Mar. 29, 1972	Oct. 9, 1973
Algeria					Apr. 20, 1972	
Argentina	Mar. 29, 1972		Mar. 29, 1972		Apr. 5, 1972	
Austria	May 30, 1972		May 30, 1972		May 30, 1972	
Belgium	Mar. 29, 1972		Mar. 29, 1972		Mar. 29, 1972	
Botswana	do.	Mar. 11, 1974				
Brazil	July 13, 1972	Mar. 9, 1973	July 13, 1972	Mar. 9, 1973	July 13, 1972	Mar. 9, 1973
Bulgaria	Mar. 29, 1972	June 14, 1972	Mar. 29, 1972	May 14, 1973	Mar. 29, 1972	May 16, 1972
Burundi	do.					
Byelorussian Soviet Socialist Republic ²			Mar. 29, 1972			
Central African Republic	Apr. 27, 1972					
China, Republic of	Mar. 29, 1972	Feb. 9, 1973				
Colombia	do.					
Costa Rica	do.					
Cyprus	May 12, 1972	May 23, 1973	May 5, 1972	May 23, 1973	Apr. 28, 1972	May 15, 1973
Czechoslovakia	Mar. 29, 1972	Sept. 8, 1976	Mar. 29, 1972		Mar. 29, 1972	
Dahomey	do.	Apr. 25, 1975				
Denmark	Apr. 19, 1972		Apr. 19, 1972		Apr. 19, 1972	
Dominican Republic	Apr. 26, 1972	Feb. 23, 1973				
Ecuador	Apr. 25, 1972	Aug. 17, 1972				
Egypt			May 19, 1972		June 6, 1972	
El Salvador	Mar. 29, 1972					
Finland	do.		Mar. 29, 1972		Mar. 29, 1972	
Gambia	June 2, 1972		June 2, 1972		Aug. 8, 1972	
German Democratic Republic			Mar. 29, 1972	Aug. 30, 1972		
Ghana	Mar. 31, 1972		do.			
Greece	Apr. 12, 1972 ³					
Guatemala	Mar. 29, 1972					
Haiti	do.					
Honduras	do.					
Hungary	do.	Dec. 27, 1972	Mar. 29, 1972	Dec. 27, 1972	Mar. 29, 1972	Dec. 27, 1972
Iceland	do.		do.		do.	
Iran	do.	Feb. 13, 1974	do.		do.	
Ireland	do.	June 29, 1972 ⁴			do.	⁴ June 29, 1972
Italy	do.		Mar. 29, 1972		Apr. 14, 1972	
Jordan	May 25, 1972		June 6, 1972			
Khmer Republic	Mar. 29, 1972					
Korea, Republic of	do. ³				Mar. 29, 1972 ³	
Kuwait	June 7, 1972	Nov. 15, 1972	June 9, 1972	Nov. 23, 1972	June 20, 1972	Oct. 30, 1972
Laos	Mar. 29, 1972	Mar. 22, 1973	Mar. 31, 1972	Mar. 20, 1973	Mar. 29, 1972	Apr. 25, 1973
Lebanon	do.		Apr. 21, 1972		do.	
Luxembourg	Apr. 25, 1972		May 10, 1972		Apr. 27, 1972	
Mali	Apr. 10, 1972	June 9, 1972	Apr. 4, 1972			
Mexico	Mar. 29, 1972	Apr. 8, 1974	Mar. 29, 1972		Mar. 29, 1972	Apr. 8, 1974
Mongolia	Apr. 10, 1972	Sept. 5, 1972	do.	Oct. 20, 1972	do.	Sept. 14, 1972
Morocco	Mar. 29, 1972		Apr. 5, 1972		Apr. 4, 1972	
Nepal	June 19, 1972		Mar. 29, 1972		Mar. 29, 1972	
New Zealand	do.	Oct. 30, 1974 ⁴	June 22, 1972		June 19, 1972 ⁴	Oct. 30, 1974
Nicaragua	Mar. 29, 1972				Apr. 11, 1972	
Niger	May 24, 1972	Sept. 1, 1972				
Norway	Mar. 29, 1972		Mar. 29, 1972		Mar. 29, 1972	
Oman					June 23, 1972	
Pakistan	Aug. 10, 1972	Apr. 4, 1973	July 7, 1972	May 29, 1973	July 6, 1972	Apr. 10, 1973
Panama		June 5, 1974			Mar. 29, 1972	
Peru	Apr. 10, 1972					
Philippines	Aug. 22, 1972					
Poland	Mar. 29, 1972	Jan. 25, 1973	Mar. 29, 1972	Jan. 25, 1973	Mar. 29, 1972	Jan. 25, 1973
Romania	Mar. 29, 1972		Mar. 29, 1972		Mar. 29, 1972	
Rwanda	do.		do.			
Senegal	Apr. 14, 1972	Mar. 26, 1975				
Sierra Leone	July 17, 1972		July 14, 1972			
Singapore	July 19, 1972	Aug. 19, 1975	July 19, 1972		July 19, 1972	
Spain	Mar. 29, 1972					
South Africa	do.					
Switzerland	do.	Jan. 22, 1974	Mar. 29, 1972		Mar. 29, 1972	

See footnotes at end of table.

THE SPACE LIABILITY CONVENTION—Continued

Country	Washington		Moscow ¹		London ¹	
	Signature	Ratification	Signature	Ratification	Signature	Ratification
Tanzania.....	May 31, 1972					
Togo.....	Apr. 10, 1972	Apr. 26, 1976				
Tunisia.....	Mar. 29, 1972	May 18, 1973	Apr. 3, 1972	May 30, 1973	Apr. 6, 1972	June 6, 1973
Ukrainian Soviet Socialist Republic. ²			Mar. 29, 1972	Oct. 16, 1973		
U.S.S.R.....	Mar. 29, 1972	Oct. 9, 1973	do.....	Oct. 9, 1973	Mar. 29, 1972	Oct. 9, 1973
United Kingdom.....	do.....	do.....	do.....	do.....	do.....	Do.
Venezuela.....	do.....					
Zaire.....	do.....		Apr. 4, 1972			
	Accession		Accession		Accession	
Iraq.....			Oct. 4, 1972			
Fiji.....	Apr. 4, 1973		May 14, 1973		May 4, 1973	
Sri Lanka.....	Apr. 9, 1973		Apr. 9, 1973		May 3, 1973	
Zambia.....	Aug. 20, 1973		Aug. 21, 1973		Aug. 28, 1973	
Australia.....	Jan. 20, 1975				Jan. 20, 1975	
Canada.....	Feb. 20, 1974 ⁴				⁴ Feb. 20, 1975	
Kenya.....	Sept. 25, 1975					
Yugoslavia.....	Oct. 20, 1975					
Federal Republic of Germany.....	Dec. 18, 1975 ³					
France.....	Dec. 31, 1975					
Sweden.....	June 15, 1976 ⁴					
Chile.....	Dec. 1, 1976					

¹ The listings for signings in Moscow and London are based upon official reports received.² The United States considers this Republic as already covered by the signature affixed to the treaty by the U.S.S.R.³ With statement.⁴ With declaration.

CONVENTION ON REGISTRATION OF OBJECTS LAUNCHED INTO OUTER SPACE

The States Parties to this Convention,

Recognizing the common interest of all mankind in furthering the exploration and use of outer space for peaceful purposes,

Recalling that the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies of 27 January 1967 affirms that States shall bear international responsibility for their national activities in outer space and refers to the State on whose registry an object launched into outer space is carried,

Recalling also that the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space of 22 April 1968 provides that a launching authority shall, upon request, furnish identifying data prior to the return of an object it has launched into outer space found beyond the territorial limits of the launching authority,

Recalling further that the Convention on International Liability for Damage Caused by Space Objects of 29 March 1972 establishes international rules and procedures concerning the liability of launching States for damage caused by their space objects,

Desiring, in the light of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, to make provision for the national registration by launching States of space objects launched into outer space,

Desiring further that a central register of objects launched into outer space be established and maintained, on a mandatory basis, by the Secretary-General of the United Nations,

Desiring also to provide for States Parties additional means and procedures to assist in the identification of space objects,

Believing that a mandatory system of registering objects launched into outer space would, in particular, assist in their identification and would contribute to the application and development of international law governing the exploration and use of outer space,

Have agreed on the following:

ARTICLE I

For the purposes of this Convention:

(a) The term "launching State" means:

(i) A State which launches or procures the launching of a space object;

(ii) A State from whose territory or facility a space object is launched;

(b) The term "space object" includes component parts of a space object as well as its launch vehicle and parts thereof;

(c) The term "State of registry" means a launching State on whose registry a space object is carried in accordance with article II.

ARTICLE II

1. When a space object is launched into orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain. Each launching State shall inform the Secretary-General of the United Nations of the establishment of such a registry.

2. Where there are two or more launching States in respect of any such space object, they shall jointly determine which one of them shall register the object in accordance with paragraph 1 of this article, bearing in mind the provisions of article VIII of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and without prejudice to appropriate agreements concluded or to be concluded among the launching States on jurisdiction and control over the space object and over any personnel thereof.

3. The contents of each registry and the conditions under which it is maintained shall be determined by the State of registry concerned.

ARTICLE III

1. The Secretary-General of the United Nations shall maintain a Register in which the information furnished in accordance with article IV shall be recorded.

2. There shall be full and open access to the information in this Register.

ARTICLE IV

1. Each State of registry shall furnish to the Secretary-General of the United Nations, as soon as practicable, the following information concerning each space object carried on its registry:

- (a) Name of launching State or States;
- (b) An appropriate designator of the space object or its registration number;
- (c) Date and territory or location of launch;
- (d) Basic orbital parameters, including:
 - (i) Nodal period,
 - (ii) Inclination,
 - (iii) Apogee,
 - (iv) Perigee;
- (e) General function of the space object.

2. Each State of registry may, from time to time, provide the Secretary-General of the United Nations with additional information concerning a space object carried on its registry.

3. Each State of registry shall notify the Secretary-General of the United Nations, to the greatest extent feasible and as soon as practicable, of space objects concerning which it has previously transmitted information, and which have been but no longer are in earth orbit.

ARTICLE V

Whenever a space object launched into earth orbit or beyond is marked with the designator or registration number referred to in article IV, paragraph 1 (b), or both, the State of registry shall notify the Secretary-General of this fact when submitting the information regarding the space object in accordance with article IV. In such case, the Secretary-General of the United Nations shall record this notification in the Register.

ARTICLE VI

Where the application of the provisions of this Convention has not enabled a State Party to identify a space object which has caused damage to it or to any of its natural or juridical persons, or which may be of a hazardous or deleterious nature, other States Parties, including in particular States possessing space monitoring and tracking facilities, shall respond to the greatest extent feasible to a request by that State Party, or transmitted through the Secretary-General on its behalf, for assistance under equitable and reasonable conditions in the identification of the object. A State Party making such a request shall, to the greatest extent feasible, submit information as to the time, nature and circumstances of the events giving rise to the request. Arrangements under which such assistance shall be rendered shall be the subject of agreement between the parties concerned.

ARTICLE VII

1. In this Convention, with the exception of articles VIII to XII inclusive, references to States shall be deemed to apply to any international intergovernmental organization which conducts space activities if the organization declares its acceptance of the rights and obligations provided for in this Convention and if a majority of the States members of the organization are States Parties to this Convention and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

2. States members of any such organization which are States Parties to this Convention shall take all appropriate steps to ensure that the organization makes a declaration in accordance with paragraph 1 of this article.

ARTICLE VIII

1. This Convention shall be open for signature by all States at United Nations Headquarters in New York. Any State which does not sign this Convention before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Convention shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Secretary-General of the United Nations.

3. This Convention shall enter into force among the States which have deposited instruments of ratification on the deposit of the fifth such instrument with the Secretary-General of the United Nations.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of the Convention, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Secretary-General shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Convention, the date of its entry into force and other notices.

ARTICLE IX

Any State Party to this Convention may propose amendments to the Convention. Amendments shall enter into force for each State Party to the Convention accepting the amendments upon their acceptance by a majority of the States Parties to the Convention and thereafter for each remaining State Party to the Convention on the date of acceptance by it.

ARTICLE X

Ten years after the entry into force of this Convention, the question of the review of the Convention shall be included in the provisional agenda of the United Nations General Assembly in order to consider, in the light of past application of the Convention, whether it requires revision. However, at any time after the Convention has been in force for five years, at the request of one third of the States Parties to the Convention and with the concurrence of the majority of the States Parties, a conference of the States Parties shall be convened to review this Convention. Such review shall take into account in particular any relevant technological developments, including those relating to the identification of space objects.

ARTICLE XI

Any State Party to this Convention may give notice of its withdrawal from the Convention one year after its entry into force by written notification to the Secretary-General of the United Nations. Such withdrawal shall take effect one year from the date of receipt of this notification.

ARTICLE XII

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all signatory and acceding States.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto by their respective Governments, have signed this Convention, opened for signature at New York on * * *.

Convention on registration of objects launched into outer space. Opened for signature at New York January 14, 1975. Senate advice and consent to ratification June 21, 1976. Instrument of ratification signed by the President July 24, 1976.

Signatures, ratifications deposited, adherences, acceptances.

Depositary: Secretary-General of the United Nations.

Entry into force—Date: September 15, 1976.

Method: On the deposit of the fifth instrument of ratification (art. VIII, 3); subsequent to entry into force of the convention, it will enter into force for each state on deposit of instruments of ratification or accession (art. VIII, 4).

Duration: Not stated. Parties may withdraw from the convention one year after its entry into force by written notice to UN Secretary-General, to be effective one year from date of receipt (art. XI).

Countries	Signatures	Ratifications deposited
United States.....	Jan. 24, 1975	Sept. 15, 1976
France.....	Jan. 14, 1975	Dec. 17, 1975
Canada.....	Feb. 14, 1975	Aug. 4, 1976
Belgium.....	Mar. 19, 1975	
Argentina.....	Mar. 26, 1975	
Switzerland.....	Apr. 14, 1975	
United Kingdom.....	May 6, 1975	
Nicaragua.....	May 13, 1975	
Iran.....	May 27, 1975	
Union of Soviet Socialist Republics.....	June 17, 1975	
Byelorussian Soviet Socialist Republic.....	June 30, 1975	
Ukrainian Soviet Socialist Republic.....	July 11, 1975	
German Democratic Republic.....	Aug. 27, 1975	
Austria.....	Oct. 14, 1975	
Mongolia.....	Oct. 30, 1975	
Hungary.....	Oct. 13, 1975	
Burundi.....	Nov. 13, 1975	
Pakistan.....	Dec. 1, 1975	
Poland.....	Dec. 4, 1975	
Denmark.....	Dec. 12, 1975	
Mexico.....	Dec. 19, 1975	
Bulgaria.....	Feb. 4, 1976	May 11, 1976
Federal Republic of Germany.....	Mar. 2, 1976	
Czechoslovakia.....	Apr. 5, 1976	
Sweden.....	June 9, 1976	June 9, 1976
Niger.....	Aug. 5, 1976	
Singapore.....	Aug. 31, 1976	

MULTILATERAL

International Telecommunications Satellite Organization (INTELSAT)

*Agreement, with annexes, done at Washington August 20, 1971;
Entered into force February 12, 1973.*

And operating agreement, with annex

*Concluded by certain Governments and entities designated by
Governments;*

Done at Washington August 20, 1971;

Entered into force February 12, 1973.

PREAMBLE

The States Parties to this Agreement,

Considering the principle set forth in Resolution 1721 (XVI) of the General Assembly of the United Nations that communication by means of satellites should be available to the nations of the world as soon as practicable on a global and non-discriminatory basis,

Considering the relevant provisions of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies,^[1] and in particular Article I, which states that outer space shall be used for the benefit and in the interests of all countries,

Noting that pursuant to the Agreement Establishing Interim Arrangements for a Global Commercial Communications Satellite System and the related Special Agreement, a global commercial telecommunications satellite system has been established,

Desiring to continue the development of this telecommunications satellite system with the aim of achieving a single global commercial telecommunications satellite system as part of an improved global telecommunications network which will provide expanded telecommunications services to all areas of the world and which will contribute to world peace and understanding,

Determined, to this end, to provide, for the benefit of all mankind, through the most advanced technology available, the most efficient and economic facilities possible consistent with the best and most equitable use of the radio frequency spectrum and of orbital space,

¹ TIAS 6347; 18 UST 2410.

Believing that satellite telecommunications should be organized in such a way as to permit all peoples to have access to the global satellite system and those States members of the International Telecommunication Union so wishing to invest in the system with consequent participation in the design, development, construction, including the provision of equipment, establishment, operation, maintenance and ownership of the system,

Pursuant to the Agreement Establishing Interim Arrangements for a Global Commercial Communications Satellite System,^[1]

Agree as follows:

ARTICLE I

(Definitions)

For the purposes of this Agreement:

(a) "Agreement" means the present agreement, including its Annexes but excluding all titles of Articles, opened for signature by Governments at Washington on August 20, 1971, by which the international telecommunications satellite organization "INTELSAT" is established;

(b) "Operating Agreement" means the agreement, including its Annex but excluding all titles of Articles, opened for signature at Washington on August 20, 1971, by Governments or telecommunications entities designated by Governments in accordance with the provisions of this Agreement;

(c) "Interim Agreement" means the Agreement Establishing Interim Arrangements for a Global Commercial Communications Satellite System signed by Governments at Washington on August 20, 1964;

(d) "Special Agreement" means the agreement signed on August 20, 1964, by Governments or telecommunications entities designated by Governments, pursuant to the provisions of the Interim Agreement;

¹ TIAS 5646; 15 UST 1705.

(e) "Interim Communications Satellite Committee" means the Committee established by Article IV of the Interim Agreement;

(f) "Party" means a State for which the Agreement has entered into force or been provisionally applied;

(g) "Signatory" means a Party, or the telecommunications entity designated by a Party, which has signed the Operating Agreement and for which it has entered into force or been provisionally applied;

(h) "Space segment" means the telecommunications satellites, and the tracking, telemetry, command, control, monitoring and related facilities and equipment required to support the operation of these satellites;

(i) "INTELSAT space segment" means the space segment owned by INTELSAT;

(j) "Telecommunications" means any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature, by wire, radio, optical or other electromagnetic systems;

(k) "Public telecommunications services" means fixed or mobile telecommunications services which can be provided by satellite and which are available for use by the public, such as telephony, telegraphy, telex, facsimile, data transmission, transmission of radio and television programs between approved earth stations having access to the INTELSAT space segment for further transmission to the public, and leased circuits for any of these purposes; but excluding those mobile services of a type not provided under the Interim Agreement and the Special Agreement prior to the opening for signature of this Agreement, which are provided through mobile stations

operating directly to a satellite which is designed, in whole or in part, to provide services relating to the safety or flight control of aircraft or to aviation or maritime radio navigation;

(l) "Specialized telecommunications services" means telecommunications services which can be provided by satellite, other than those defined in paragraph (k) of this Article, including, but not limited to, radio navigation services, broadcasting satellite services for reception by the general public, space research services, meteorological services, and earth resources services;

(m) "Property" includes every subject of whatever nature to which a right of ownership can attach, as well as contractual rights; and

(n) "Design" and "development" include research directly related to the purposes of INTELSAT.

ARTICLE II

(Establishment of INTELSAT)

(a) With full regard for the principles set forth in the Preamble to this Agreement, the Parties hereby establish the international telecommunications satellite organization "INTELSAT", the main purpose of which is to continue and carry forward on a definitive basis the design, development, construction, establishment, operation and maintenance of the space segment of the global commercial telecommunications satellite system as established under the provisions of the Interim Agreement and the Special Agreement.

(b) Each State Party shall sign, or shall designate a telecommunications entity, public or private, to sign, the Operating Agreement which shall be concluded in conformity with the provisions of this Agreement and which shall be opened for signature at the same time as this Agreement. Relations between any telecommunications entity, acting as Signatory, and the Party which has designated it shall be governed by applicable domestic law.

(c) Telecommunications administrations and entities may, subject to applicable domestic law, negotiate and enter directly into appropriate traffic agreements with respect to their use of channels of telecommunications provided pursuant to this Agreement and the Operating Agreement, as well as services to be furnished to the public, facilities, divisions of revenue and related business arrangements.

ARTICLE III

(Scope of INTELSAT Activities)

(a) In continuing and carrying forward on a definitive basis activities concerning the space segment of the global commercial telecommunications satellite system referred to in paragraph (a) of Article II of this Agreement, INTELSAT shall have as its prime objective the provision, on a commercial basis, of the space segment required for international public telecommunications services of high quality and reliability to be available on a non-discriminatory basis to all areas of the world.

(b) The following shall be considered on the same basis as international public telecommunications services:

- (i) domestic public telecommunications services between areas separated by areas not under the jurisdiction of the State concerned, or between areas separated by the high seas; and
- (ii) domestic public telecommunications services between areas which are not linked by any terrestrial wide-band facilities and which are separated by natural barriers of such an exceptional nature that they impede the viable establishment of terrestrial wide-band facilities between such areas, provided that the Meeting of Signatories, having regard to advice tendered by the Board of Governors, has given the appropriate approval in advance.

(c) The INTELSAT space segment established to meet the prime objective shall also be made available for other domestic public telecommunications services on a non-discriminatory basis to the extent that the ability of INTELSAT to achieve its prime objective is not impaired.

(d) The INTELSAT space segment may also, on request and under appropriate terms and conditions, be utilized for the purpose of specialized telecommunications services, either international or domestic, other than for military purposes, provided that:

(i) the provision of public telecommunications services is not unfavorably affected thereby; and

(ii) the arrangements are otherwise acceptable from a technical and economic point of view.

(e) INTELSAT may, on request and under appropriate terms and conditions, provide satellites or associated facilities separate from the INTELSAT space segment for:

(i) domestic public telecommunications services in territories under the jurisdiction of one or more Parties;

(ii) international public telecommunications services between or among territories under the jurisdiction of two or more Parties;

(iii) specialized telecommunications services, other than for military purposes;

provided that the efficient and economic operation of the INTELSAT space segment is not unfavorably affected in any way.

(f) The utilization of the INTELSAT space segment for specialized telecommunications services pursuant to paragraph (d) of this Article, and the provision of satellites or associated facilities separate from the INTELSAT space segment pursuant to paragraph (e) of this Article, shall be covered by contracts entered into between INTELSAT and the applicants concerned. The utilization of INTELSAT space segment facilities for specialized telecommunications services pursuant to paragraph (d) of this Article, and the provision of satellites or associated facilities separate from the INTELSAT space segment for specialized telecommunications services pursuant to subparagraph (e) (iii) of this Article, shall be in accordance with appropriate authorizations, at the planning stage, of the Assembly of Parties pursuant to subparagraph (c) (iv) of Article VII of this Agreement. Where the utilization of INTELSAT space segment facilities for specialized telecommunications services would involve additional costs which result from required modifications to existing or planned INTELSAT space segment facilities, or where the provision of satellites or associated facilities separate from the INTELSAT space segment is sought for specialized telecommunications services as provided for in subparagraph (e) (iii) of this Article, authorization pursuant to subparagraph (c) (iv) of Article VII of this Agreement shall be sought from the Assembly of Parties as soon as the Board of Governors is in a position to advise the Assembly of Parties in detail regarding the estimated cost of the proposal, the benefits to be derived, the technical or other problems involved and the probable effects on present or foreseeable INTELSAT services. Such authorization shall be obtained before the procurement process for the facility or facilities involved is initiated.

Before making such authorizations, the Assembly of Parties, in appropriate cases, shall consult or ensure that there has been consultation by INTELSAT with Specialized Agencies of the United Nations directly concerned with the provision of the specialized telecommunications services in question.

ARTICLE IV

(Juridical Personality)

(a) INTELSAT shall possess juridical personality. It shall enjoy the full capacity necessary for the exercise of its functions and the achievement of its purposes, including the capacity to:

- (i) conclude agreements with States or international organizations;
- (ii) contract;
- (iii) acquire and dispose of property; and
- (iv) be a party to legal proceedings.

(b) Each Party shall take such action as is necessary within its jurisdiction for the purpose of making effective in terms of its own law the provisions of this Article.

ARTICLE V

(Financial Principles)

(a) INTELSAT shall be the owner of the INTELSAT space segment and of all other property acquired by INTELSAT. The financial interest in INTELSAT of each Signatory shall be equal to the amount arrived at by the application of its investment share to the valuation effected pursuant to Article 7 of the Operating Agreement.

(b) Each Signatory shall have an investment share corresponding to its percentage of all utilization of the INTELSAT space segment by all Signatories as determined in accordance with the provisions of the Operating Agreement. However, no Signatory, even if its utilization of the INTELSAT space segment is nil, shall have an investment share less than the minimum established in the Operating Agreement.

(c) Each Signatory shall contribute to the capital requirements of INTELSAT, and shall receive capital repayment and compensation for use of capital in accordance with the provisions of the Operating Agreement.

(d) All users of the INTELSAT space segment shall pay utilization charges determined in accordance with the provisions of this Agreement and the Operating Agreement. The rates of space segment utilization charge for each type of utilization shall be the same for all applicants for space segment capacity for that type of utilization.

(e) The separate satellites and associated facilities referred to in paragraph (e) of Article III of this Agreement may be financed and owned by INTELSAT as part of the INTELSAT space segment upon the unanimous approval of all the Signatories. If such approval is withheld, they shall be separate from the INTELSAT space segment and shall be financed and owned by those requesting them. In this case the financial terms and conditions set by INTELSAT shall be such as to cover fully the costs directly resulting from the design, development, construction and provision of such separate satellites and associated facilities as well as an adequate part of the general and administrative costs of INTELSAT.

ARTICLE VI

(Structure of INTELSAT)

(a) INTELSAT shall have the following organs:

- (i) the Assembly of Parties;
- (ii) the Meeting of Signatories;
- (iii) the Board of Governors; and
- (iv) an executive organ, responsible to the Board of Governors.

(b) Except to the extent that this Agreement or the Operating Agreement specifically provides otherwise, no organ shall make determinations or otherwise act in such a way as to alter, nullify, delay or in any other manner interfere with the exercise of a power or the discharge of a responsibility or a function attributed to another organ by this Agreement or the Operating Agreement.

(c) Subject to paragraph (b) of this Article, the Assembly of Parties, the Meeting of Signatories and the Board of Governors shall each take note of and give due and proper consideration to any resolution, recommendation or view made or expressed by another of these organs acting in the exercise of the responsibilities and functions attributed to it by this Agreement or the Operating Agreement.

ARTICLE VII

(Assembly of Parties)

(a) The Assembly of Parties shall be composed of all the Parties and shall be the principal organ of INTELSAT.

(b) The Assembly of Parties shall give consideration to those aspects of INTELSAT which are primarily of interest to the Parties as sovereign

States. It shall have the power to give consideration to general policy and long-term objectives of INTELSAT consistent with the principles, purposes and scope of activities of INTELSAT, as provided for in this Agreement. In accordance with paragraphs (b) and (c) of Article VI of this Agreement, the Assembly of Parties shall give due and proper consideration to resolutions, recommendations and views addressed to it by the Meeting of Signatories or the Board of Governors.

(c) The Assembly of Parties shall have the following functions and powers:

- (i) in the exercise of its power of considering general policy and long-term objectives of INTELSAT, to formulate its views or make recommendations, as it may deem appropriate, to the other organs of INTELSAT;
- (ii) to determine that measures should be taken to prevent the activities of INTELSAT from conflicting with any general multilateral convention which is consistent with this Agreement and which is adhered to by at least two-thirds of the Parties;
- (iii) to consider and take decisions on proposals for amending this Agreement in accordance with Article XVII of this Agreement and to propose, express its views and make recommendations on amendments to the Operating Agreement;
- (iv) to authorize, through general rules or by specific determinations, the utilization of the INTELSAT space segment and the provision of satellites and associated facilities separate from the INTELSAT space segment for specialized telecommunications services within the scope of activities referred to in paragraph (d) and subparagraph (e) (iii) of Article III of this Agreement;

- (v) to review, in order to ensure the application of the principle of non-discrimination, the general rules established pursuant to subparagraph (b) (v) of Article VIII of this Agreement;
- (vi) to consider and express its views on the reports presented by the Meeting of Signatories and the Board of Governors concerning the implementation of general policies, the activities and the long-term program of INTELSAT;
- (vii) to express, pursuant to Article XIV of this Agreement, its findings in the form of recommendations, with respect to the intended establishment, acquisition or utilization of space segment facilities separate from the INTELSAT space segment facilities;
- (viii) to take decisions, pursuant to subparagraph (b) (i) of Article XVI of this Agreement, in connection with the withdrawal of a Party from INTELSAT;
- (ix) to decide upon questions concerning formal relationships between INTELSAT and States, whether Parties or not, or international organizations;
- (x) to consider complaints submitted to it by Parties;
- (xi) to select the legal experts referred to in Article 3 of Annex C to this Agreement;
- (xii) to act upon the appointment of the Director General in accordance with Articles XI and XII of this Agreement;
- (xiii) pursuant to Article XII of this Agreement, to adopt the organizational structure of the executive organ; and
- (xiv) to exercise any other powers coming within the purview of the Assembly of Parties according to the provisions of this Agreement.

(d) The first ordinary meeting of the Assembly of Parties shall be convened by the Secretary General within one year following the date on which this Agreement enters into force. Ordinary meetings shall thereafter be scheduled to be held every two years. The Assembly of Parties, however, may decide otherwise from meeting to meeting.

- (e) (i) In addition to the ordinary meetings provided for in paragraph (d) of this Article, the Assembly of Parties may meet in extraordinary meetings, which may be convened either upon request of the Board of Governors acting pursuant to the provisions of Article XIV or XVI of this Agreement, or upon the request of one or more Parties which receives the support of at least one-third of the Parties including the requesting Party or Parties.
- (ii) Requests for extraordinary meetings shall state the purpose of the meeting and shall be addressed in writing to the Secretary General or the Director General, who shall arrange for the meeting to be held as soon as possible and in accordance with the rules of procedure of the Assembly of Parties for convening such meetings.

(f) A quorum for any meeting of the Assembly of Parties shall consist of representatives of a majority of the Parties. Each Party shall have one vote. Decisions on matters of substance shall be taken by an affirmative vote cast by at least two-thirds of the Parties whose representatives are present and voting. Decisions on procedural matters shall be taken by an affirmative vote cast by a simple majority of the Parties whose representatives are present and voting. Disputes whether a specific matter is procedural or substantive shall be decided by a vote cast by a simple majority of the Parties whose representatives are present and voting.

(g) The Assembly of Parties shall adopt its own rules of procedure, which shall include provision for the election of a Chairman and other officers.

(h) Each Party shall meet its own costs of representation at a meeting of the Assembly of Parties. Expenses of meetings of the Assembly of Parties shall be regarded as an administrative cost of INTELSAT for the purpose of Article 8 of the Operating Agreement.

ARTICLE VIII

(Meeting of Signatories)

(a) The Meeting of Signatories shall be composed of all the Signatories. In accordance with paragraphs (b) and (c) of Article VI of this Agreement, the Meeting of Signatories shall give due and proper consideration to resolutions, recommendations and views addressed to it by the Assembly of Parties or the Board of Governors.

(b) The Meeting of Signatories shall have the following functions and powers:

- (i) to consider and express its views to the Board of Governors on the annual report and annual financial statements submitted to it by the Board of Governors;
- (ii) to express its views and make recommendations on proposed amendments to this Agreement pursuant to Article XVII of this Agreement and to consider and take decisions, in accordance with Article 22 of the Operating Agreement and taking into account any views and recommendations received from the Assembly of Parties or the Board of Governors, on proposed amendments to the Operating Agreement which are consistent with this Agreement;

- (iii) to consider and express its views regarding reports on future programs, including the estimated financial implications of such programs, submitted by the Board of Governors;
- (iv) to consider and decide on any recommendation made by the Board of Governors concerning an increase in the ceiling provided for in Article 5 of the Operating Agreement;
- (v) to establish general rules, upon the recommendation of and for the guidance of the Board of Governors, concerning:
 - (A) the approval of earth stations for access to the INTELSAT space segment,
 - (B) the allotment of INTELSAT space segment capacity, and
 - (C) the establishment and adjustment of the rates of charge for utilization of the INTELSAT space segment on a non-discriminatory basis;
- (vi) to take decisions pursuant to Article XVI of this Agreement in connection with the withdrawal of a Signatory from INTELSAT;
- (vii) to consider and express its views on complaints submitted to it by Signatories directly or through the Board of Governors or submitted to it through the Board of Governors by users of the INTELSAT space segment who are not Signatories;
- (viii) to prepare and present to the Assembly of Parties, and to the Parties, reports concerning the implementation of general policies, the activities and the long-term program of INTELSAT;

- (ix) to take decisions concerning the approval referred to in subparagraph (b)(ii) of Article III of this Agreement;
- (x) to consider and express its views on the report on permanent management arrangements submitted by the Board of Governors to the Assembly of Parties pursuant to paragraph (g) of Article XII of this Agreement;
- (xi) to make annual determinations for the purpose of representation on the Board of Governors in accordance with Article IX of this Agreement; and
- (xii) to exercise any other powers coming within the purview of the Meeting of Signatories according to the provisions of this Agreement or the Operating Agreement.

(c) The first ordinary meeting of the Meeting of Signatories shall be convened by the Secretary General at the request of the Board of Governors within nine months after the entry into force of this Agreement. Thereafter an ordinary meeting shall be held in every calendar year.

- (d) (i) In addition to the ordinary meetings provided for in paragraph (c) of this Article, the Meeting of Signatories may hold extraordinary meetings, which may be convened either upon the request of the Board of Governors or upon the request of one or more Signatories which receives the support of at least one-third of the Signatories including the requesting Signatory or Signatories.
- (ii) Requests for extraordinary meetings shall state the purpose for which the meeting is required and shall be addressed in writing to the Secretary General or the Director General, who shall arrange for the meeting to be held as soon as

possible and in accordance with the rules of procedure of the Meeting of Signatories for convening such meetings. The agenda for an extraordinary meeting shall be restricted to the purpose or purposes for which the meeting was convened.

(e) A quorum for any meeting of the Meeting of Signatories shall consist of representatives of a majority of the Signatories. Each Signatory shall have one vote. Decisions on matters of substance shall be taken by an affirmative vote cast by at least two-thirds of the Signatories whose representatives are present and voting. Decisions on procedural matters shall be taken by an affirmative vote cast by a simple majority of the Signatories whose representatives are present and voting. Disputes whether a specific matter is procedural or substantive shall be decided by a vote cast by a simple majority of the Signatories whose representatives are present and voting.

(f) The Meeting of Signatories shall adopt its own rules of procedure, which shall include provision for the election of a Chairman and other officers.

(g) Each Signatory shall meet its own costs of representation at meetings of the Meeting of Signatories. Expenses of meetings of the Meeting of Signatories shall be regarded as an administrative cost of INTELSAT for the purpose of Article 8 of the Operating Agreement.

ARTICLE IX

(Board of Governors: Composition and Voting)

(a) The Board of Governors shall be composed of:

- (i) one Governor representing each Signatory whose investment share is not less than the minimum investment share as determined in accordance with paragraph (b) of this Article;
- (ii) one Governor representing each group of any two or more Signatories not represented pursuant to subparagraph (i) of this paragraph whose combined investment share is not less than the minimum investment share as determined in accordance with paragraph (b) of this Article and which have agreed to be so represented;
- (iii) one Governor representing any group of at least five Signatories not represented pursuant to subparagraph (i) or (ii) of this paragraph from any one of the regions defined by the Plenipotentiary Conference of the International Telecommunication Union, held at Montreux in 1965, regardless of the total investment shares held by the Signatories comprising the group. However, the number of Governors under this category shall not exceed two for any region defined by the Union or five for all such regions.

- (b) (i) During the period between the entry into force of this Agreement and the first meeting of the Meeting of Signatories, the minimum investment share that will entitle a Signatory or group of Signatories to be represented on the Board of Governors shall be equal to the investment share of the Signatory holding position thirteen in the list of the descending order of size of initial investment shares of all the Signatories.
- (ii) Subsequent to the period mentioned in subparagraph (i) of this paragraph, the Meeting of Signatories shall determine annually the minimum investment share that will entitle a Signatory or group of Signatories to be represented on the Board of Governors. For this purpose, the Meeting of Signatories shall be guided by the desirability of the number of Governors being approximately twenty, excluding any selected pursuant to subparagraph (a) (iii) of this Article.
- (iii) For the purpose of making the determinations referred to in subparagraph (ii) of this paragraph, the Meeting of Signatories shall fix a minimum investment share according to the following provisions:
 - (A) if the Board of Governors, at the time the determination is made, is composed of twenty, twenty-one or twenty-two Governors, the Meeting of Signatories shall fix a minimum investment share equal to the investment share of the Signatory which, in the list in effect at that time, holds the same position

held in the list in effect when the previous determination was made, by the Signatory selected on that occasion,

- (B) if the Board of Governors, at the time the determination is made, is composed of more than twenty-two Governors, the Meeting of Signatories shall fix a minimum investment share equal to the investment share of a Signatory which, in the list in effect at that time, holds a position above the one held in the list in effect when the previous determination was made, by the Signatory selected on that occasion,
- (C) if the Board of Governors, at the time the determination is made, is composed of less than twenty Governors, the Meeting of Signatories shall fix a minimum investment share equal to the investment share of a Signatory which, in the list in effect at that time, holds a position below the one held in the list in effect when the previous determination was made, by the Signatory selected on that occasion.

- (iv) If, by applying the ranking method set forth in subparagraph (iii) (B) of this paragraph, the number of Governors would be less than twenty, or, by applying that set forth in subparagraph (iii) (C) of this paragraph, would be more than twenty-two, the Meeting of Signatories shall determine a minimum investment share that will better ensure that there will be twenty Governors.

(v) For the purpose of the provisions of subparagraphs (iii) and (iv) of this paragraph, the Governors selected in accordance with subparagraph (a) (iii) of this Article shall not be taken into consideration.

(vi) For the purpose of the provisions of this paragraph, investment shares determined pursuant to subparagraph (c) (ii) of Article 6 of the Operating Agreement shall take effect from the first day of the ordinary meeting of the Meeting of Signatories following such determination.

(c) Whenever a Signatory or group of Signatories fulfills the requirements for representation pursuant to subparagraph (a) (i), (ii) or (iii) of this Article, it shall be entitled to be represented on the Board of Governors. In the case of any group of Signatories referred to in subparagraph (a) (iii) of this Article, such entitlement shall become effective upon receipt by the executive organ of a written request from such group, provided, however, that the number of such groups represented on the Board of Governors has not, at the time of receipt of any such written request, reached the applicable limitations prescribed in subparagraph (a) (iii) of this Article. If at the time of receipt of any such written request representation on the Board of Governors pursuant to subparagraph (a) (iii) of this Article has reached the applicable limitations prescribed therein, the group of Signatories may submit its request to the next ordinary meeting of the Meeting of Signatories for a determination pursuant to paragraph (d) of this Article.

(d) Upon the request of any group or groups of Signatories referred to in subparagraph (a) (iii) of this Article, the Meeting of Signatories shall annually determine which of these groups shall be or continue to be

represented on the Board of Governors. For this purpose, if such groups exceed two for any one region defined by the International Telecommunication Union, or five for all such regions, the Meeting of Signatories shall first select the group which has the highest combined investment share from each such region from which there has been submitted a written request pursuant to paragraph (c) of this Article. If the number of groups so selected is less than five, the remaining groups which are to be represented shall be selected in decreasing order of the combined investment shares of each group, without exceeding the applicable limitations prescribed in subparagraph (a) (iii) of this Article.

(e) In order to ensure continuity within the Board of Governors, every Signatory or group of Signatories represented pursuant to subparagraph (a) (i), (ii) or (iii) of this Article shall remain represented, either individually or as part of such group, until the next determination made in accordance with paragraph (b) or (d) of this Article, regardless of the changes that may occur in its or their investment shares as the result of any adjustment of investment shares. However, representation as part of a group constituted pursuant to subparagraph (a) (ii) or (iii) of this Article shall cease if the withdrawal from the group of one or more Signatories would make the group ineligible to be represented on the Board of Governors pursuant to this Article.

(f) Subject to the provisions of paragraph (g) of this Article, each Governor shall have a voting participation equal to that part of the investment share of the Signatory, or group of Signatories, he represents, which is derived from the utilization of the INTELSAT space segment for services of the following types:

- (i) international public telecommunications services;
- (ii) domestic public telecommunications services between areas separated by areas not under the jurisdiction of the State concerned, or between areas separated by the high seas; and
- (iii) domestic public telecommunications services between areas which are not linked by any terrestrial wide-band facilities and which are separated by natural barriers of such an exceptional nature that they impede the viable establishment of terrestrial wide-band facilities between such areas, provided that the Meeting of Signatories has given in advance the appropriate approval required by subparagraph (b) (ii) of Article III of this Agreement.

(g) For the purposes of paragraph (f) of this Article, the following arrangements shall apply:

- (i) in the case of a Signatory which is granted a lesser investment share in accordance with the provisions of paragraph (d) of Article 6 of the Operating Agreement, the reduction shall apply proportionately to all types of its utilization;
- (ii) in the case of a Signatory which is granted a greater investment share in accordance with the provisions of paragraph (d) of Article 6 of the Operating Agreement, the increase shall apply proportionately to all types of its utilization;
- (iii) in the case of a Signatory which has an investment share of 0.05 per cent in accordance with the provisions of paragraph (h) of Article 6 of the Operating Agreement and

which forms part of a group for the purpose of representation in the Board of Governors pursuant to the provisions of subparagraph (a) (ii) or (a) (iii) of this Article, its investment share shall be regarded as being derived from utilization of the INTELSAT space segment for services of the types listed in paragraph (f) of this Article; and

(iv) no Governor may cast more than forty per cent of the total voting participation of all Signatories and groups of Signatories represented on the Board of Governors. To the extent that the voting participation of any Governor exceeds forty per cent of such total voting participation, the excess shall be distributed equally to the other Governors on the Board of Governors.

(h) For the purposes of composition of the Board of Governors and calculation of the voting participation of Governors, the investment shares determined pursuant to subparagraph (c) (ii) of Article 6 of the Operating Agreement shall take effect from the first day of the ordinary meeting of the Meeting of Signatories following such determination.

(i) A quorum for any meeting of the Board of Governors shall consist of either a majority of the Board of Governors, which majority shall have at least two-thirds of the total voting participation of all Signatories and groups of Signatories represented on the Board of Governors, or else the total number constituting the Board of Governors minus three, regardless of the amount of voting participation they represent.

(j) The Board of Governors shall endeavor to take decisions unanimously. However, if it fails to reach unanimous agreement, it shall take decisions:

(i) on all substantive questions, either by an affirmative vote cast by at least four Governors having at least two-thirds of the total voting participation of all Signatories and groups of Signatories represented on the Board of Governors taking into account the distribution of the excess referred to in subparagraph (g) (iv) of this Article, or else by an affirmative vote cast by at least the total number constituting the Board of Governors minus three, regardless of the amount of voting participation they represent;

(ii) on all procedural questions, by an affirmative vote representing a simple majority of Governors present and voting, each having one vote.

(k) Disputes whether a specific question is procedural or substantive shall be decided by the Chairman of the Board of Governors. The decision of the Chairman may be overruled by a two-thirds majority of the Governors present and voting, each having one vote.

(l) The Board of Governors, if it deems appropriate, may create advisory committees to assist it in the performance of its responsibilities.

(m) The Board of Governors shall adopt its own rules of procedure, which shall include the method of election of a Chairman and such other officers as may be required. Notwithstanding the provisions of paragraph (j) of this Article, such rules may provide for any method of voting in the election of officers which the Board of Governors deems appropriate.

(n) The first meeting of the Board of Governors shall be convened in accordance with paragraph 2 of the Annex to the Operating Agreement. The Board of Governors shall meet as often as is necessary but at least four times a year.

ARTICLE X

(Board of Governors: Functions)

(a) The Board of Governors shall have the responsibility for the design, development, construction, establishment, operation and maintenance of the INTELSAT space segment and, pursuant to this Agreement, the Operating Agreement and such determinations that in this respect may have been made by the Assembly of Parties pursuant to Article VII of this Agreement, for carrying out any other activities which are undertaken by INTELSAT. To discharge the foregoing responsibilities, the Board of Governors shall have the powers and shall exercise the functions coming within its purview according to the provisions of this Agreement and the Operating Agreement, including:

- (i) adoption of policies, plans and programs in connection with the design, development, construction, establishment, operation and maintenance of the INTELSAT space segment and, as appropriate, in connection with any other activities which INTELSAT is authorized to undertake;
- (ii) adoption of procurement procedures, regulations, terms and conditions, consistent with Article XIII of this Agreement, and approval of procurement contracts;
- (iii) adoption of financial policies and annual financial statements, and approval of budgets;

- (iv) adoption of policies and procedures for the acquisition, protection and distribution of rights in inventions and technical information, consistent with Article 17 of the Operating Agreement;
- (v) formulation of recommendations to the Meeting of Signatories in relation to the establishment of the general rules referred to in subparagraph (b) (v) of Article VIII of this Agreement;
- (vi) adoption of criteria and procedures, in accordance with such general rules as may have been established by the Meeting of Signatories, for approval of earth stations for access to the INTELSAT space segment, for verification and monitoring of performance characteristics of earth stations having access, and for coordination of earth station access to and utilization of the INTELSAT space segment;
- (vii) adoption of terms and conditions governing the allotment of INTELSAT space segment capacity, in accordance with such general rules as may have been established by the Meeting of Signatories;
- (viii) periodic establishment of the rates of charge for utilization of the INTELSAT space segment, in accordance with such general rules as may have been established by the Meeting of Signatories;
- (ix) action as may be appropriate, in accordance with the provisions of Article 5 of the Operating Agreement, with respect to an increase in the ceiling provided for in that Article;

- (x) direction of the negotiation with the Party in whose territory the headquarters of INTELSAT is situated, and submission to the Assembly of Parties for decision thereon, of the Headquarters Agreement covering privileges, exemptions and immunities, referred to in paragraph (c) of Article XV of this Agreement;
- (xi) approval of non-standard earth stations for access to the INTELSAT space segment in accordance with the general rules which may have been established by the Meeting of Signatories;
- (xii) establishment of terms and conditions for access to the INTELSAT space segment by telecommunications entities which are not under the jurisdiction of a Party, in accordance with the general rules established by the Meeting of Signatories pursuant to subparagraph (b) (v) of Article VIII of this Agreement and consistent with the provisions of paragraph (d) of Article V of this Agreement;
- (xiii) decisions on the making of arrangements for overdrafts and the raising of loans in accordance with Article 10 of the Operating Agreement;
- (xiv) submission to the Meeting of Signatories of an annual report on the activities of INTELSAT and of annual financial statements;

- (xv) submission to the Meeting of Signatories of reports on future programs including the estimated financial implications of such programs;
- (xvi) submission to the Meeting of Signatories of reports and recommendations on any other matter which the Board of Governors deems appropriate for consideration by the Meeting of Signatories;
- (xvii) provision of such information as may be required by any Party or Signatory to enable that Party or Signatory to discharge its obligations under this Agreement or the Operating Agreement;
- (xviii) appointment and removal from office of the Secretary General pursuant to Article XII, and of the Director General pursuant to Articles VII, XI and XII, of this Agreement;
- (xix) designation of a senior officer of the executive organ to serve as Acting Secretary General pursuant to subparagraph (d) (i) of Article XII and designation of a senior officer of the executive organ to serve as Acting Director General pursuant to subparagraph (d) (i) of Article XI of this Agreement;
- (xx) determination of the number, status and terms and conditions of employment of all posts on the executive organ upon the recommendation of the Secretary General or the Director General;
- (xxi) approval of the appointment by the Secretary General or the Director General of senior officers reporting directly to him;

- (xxii) arrangement of contracts in accordance with subparagraph (c) (ii) of Article XI of this Agreement;
- (xxiii) establishment of general internal rules, and adoption of decisions in each instance, concerning notification to the International Telecommunication Union in accordance with its rules of procedure of the frequencies to be used for the INTELSAT space segment;
- (xxiv) tendering to the Meeting of Signatories the advice referred to in subparagraph (b) (ii) of Article III of this Agreement;
- (xxv) expression, pursuant to paragraph (c) of Article XIV of this Agreement, of its findings in the form of recommendations, and the tendering of advice to the Assembly of Parties, pursuant to paragraph (d) or (e) of Article XIV of this Agreement, with respect to the intended establishment, acquisition or utilization of space segment facilities separate from the INTELSAT space segment facilities;
- (xxvi) action in accordance with Article XVI of this Agreement and Article 21 of the Operating Agreement in connection with the withdrawal of a Signatory from INTELSAT; and
- (xxvii) expression of its views and recommendations on proposed amendments to this Agreement pursuant to paragraph (b) of Article XVII of this Agreement, the proposal of amendments to the Operating Agreement pursuant to paragraph (a) of Article 22 of the Operating Agreement, and the expression of its views and recommendations on proposed amendments to the Operating Agreement pursuant to paragraph (b) of Article 22 of the Operating Agreement.

(b) In accordance with the provisions of paragraphs (b) and (c) of Article VI of this Agreement, the Board of Governors shall:

- (i) give due and proper consideration to resolutions, recommendations and views addressed to it by the Assembly of Parties or the Meeting of Signatories; and
- (ii) include in its reports to the Assembly of Parties and to the Meeting of Signatories information on actions or decisions taken with respect to such resolutions, recommendations and views, and its reasons for such actions or decisions.

ARTICLE XI

(Director General)

(a) The executive organ shall be headed by the Director General and shall have its organizational structure implemented not later than six years after the entry into force of this Agreement.

- (b) (i) The Director General shall be the chief executive and the legal representative of INTELSAT and shall be directly responsible to the Board of Governors for the performance of all management functions.
- (ii) The Director General shall act in accordance with the policies and directives of the Board of Governors.
- (iii) The Director General shall be appointed by the Board of Governors, subject to confirmation by the Assembly of Parties. The Director General may be removed from office for cause by the Board of Governors on its own authority.

- (iv) The paramount consideration in the appointment of the Director General and in the selection of other personnel of the executive organ shall be the necessity of ensuring the highest standards of integrity, competency and efficiency. The Director General and the personnel of the executive organ shall refrain from any action incompatible with their responsibilities to INTELSAT.
- (c) (i) The permanent management arrangements shall be consistent with the basic aims and purposes of INTELSAT, its international character and its obligation to provide on a commercial basis telecommunications facilities of high quality and reliability.
- (ii) The Director General, on behalf of INTELSAT, shall contract out, to one or more competent entities, technical and operational functions to the maximum extent practicable with due regard to cost and consistent with competence, effectiveness and efficiency. Such entities may be of various nationalities or may be an international corporation owned and controlled by INTELSAT. Such contracts shall be negotiated, executed and administered by the Director General.
- (d) (i) The Board of Governors shall designate a senior officer of the executive organ to serve as the Acting Director General whenever the Director General is absent or is unable to discharge his duties, or if the office of Director General should become vacant. The Acting Director General shall have the capacity to exercise all the powers of the Director

General pursuant to this Agreement and the Operating Agreement. In the event of a vacancy, the Acting Director General shall serve in that capacity until the assumption of office by a Director General appointed and confirmed, as expeditiously as possible, in accordance with subparagraph (b) (iii) of this Article.

- (ii) The Director General may delegate such of his powers to other officers in the executive organ as may be necessary to meet appropriate requirements.

ARTICLE XII

(Transitional Management and Secretary General)

(a) As a matter of priority after entry into force of this Agreement, the Board of Governors shall:

- (i) appoint the Secretary General and authorize the necessary support staff;
- (ii) arrange the management services contract in accordance with paragraph (e) of this Article; and
- (iii) initiate the study concerning permanent management arrangements in accordance with paragraph (f) of this Article.

(b) The Secretary General shall be the legal representative of INTELSAT until the first Director General shall have assumed office. In accordance with the policies and directives of the Board of Governors, the Secretary General shall be responsible for the performance of all management services other than those which are to be provided under the terms of the management services contract concluded pursuant to paragraph (e) of this Article including those specified in Annex A to this Agreement. The Secretary

General shall keep the **Board** of Governors fully and currently informed on the performance of the management services contractor under its contract. To the extent practicable, the Secretary General shall be present at or represented at and observe, but not participate in, major contract negotiations conducted by the management services contractor on behalf of INTELSAT. For this purpose the Board of Governors may authorize the appointment to the executive organ of a small number of technically qualified personnel to assist the Secretary General. The Secretary General shall not be interposed between the Board of Governors and the management services contractor nor shall he exercise a supervisory role over the said contractor.

(c) The paramount consideration in the appointment of the Secretary General and in the selection of other personnel of the executive organ shall be the necessity of ensuring the highest standards of integrity, competency and efficiency. The Secretary General and the personnel of the executive organ shall refrain from any action incompatible with their responsibilities to INTELSAT. The Secretary General may be removed from office for cause by the Board of Governors. The office of Secretary General shall cease to exist on the assumption of office by the first Director General.

- (d) (i) The Board of Governors shall designate a senior officer of the executive organ to serve as the Acting Secretary General whenever the Secretary General is absent or is unable to discharge his duties, or if the office of Secretary General should become vacant. The Acting Secretary General shall have the capacity to exercise all the powers of the Secretary General pursuant to this Agreement and the Operating Agreement. In the event of a vacancy, the Acting Secretary General shall serve in

that capacity until the assumption of office by a Secretary General, who shall be appointed by the Board of Governors as expeditiously as possible.

- (ii) The Secretary General may delegate such of his powers to other officers in the executive organ as may be necessary to meet appropriate requirements.

(e) The contract referred to in subparagraph (a) (ii) of this Article shall be between the Communications Satellite Corporation, referred to in this Agreement as "the management services contractor", and INTELSAT, and shall be for the performance of technical and operational management services for INTELSAT, as specified in Annex B to this Agreement and in accordance with the guidelines set out therein, for a period terminating at the end of the sixth year after the date of entry into force of this Agreement. The contract shall contain provisions for the management services contractor:

- (i) to act pursuant to relevant policies and directives of the Board of Governors;
- (ii) to be responsible directly to the Board of Governors until the assumption of office by the first Director General and thereafter through the Director General; and
- (iii) to furnish the Secretary General with all the information necessary for the Secretary General to keep the Board of Governors informed on the performance under the management services contract and for the Secretary General to be present at or represented at and observe, but not participate in, major contract negotiations conducted by the management services contractor on behalf of INTELSAT.

The management services contractor shall negotiate, place, amend and administer contracts on behalf of INTELSAT within the area of its responsibilities under the management services contract and as otherwise authorized by the Board of Governors. Pursuant to authorization under the management services contract, or as otherwise authorized by the Board of Governors, the management services contractor shall sign contracts on behalf of INTELSAT in the area of its responsibilities. All other contracts shall be signed by the Secretary General.

(f) The study referred to in subparagraph (a) (iii) of this Article shall be commenced as soon as possible and, in any event, within one year after entry into force of this Agreement. It shall be conducted by the Board of Governors and shall be designed to provide the information necessary for the determination of the most efficient and effective permanent management arrangements consistent with the provisions of Article XI of this Agreement. The study shall, among other matters, give due regard to:

- (i) the principles set forth in subparagraph (c) (i) of Article XI and the policy expressed in subparagraph (c) (ii) of Article XI, of this Agreement;
- (ii) experience gained during the period of the Interim Agreement and of the transitional management arrangements provided for in this Article;
- (iii) the organization and procedures adopted by telecommunications entities throughout the world, with particular reference to the integration of policy and management and to management efficiency;

- (iv) information, similar to that referred to in subparagraph (iii) of this paragraph, in respect of multinational ventures for implementing advanced technologies; and
- (v) reports commissioned from not less than three professional management consultants from various parts of the world.

(g) Not later than four years after the entry into force of this Agreement, the Board of Governors shall submit to the Assembly of Parties a comprehensive report, which incorporates the results of the study referred to in subparagraph (a) (iii) of this Article, and which includes the recommendations of the Board of Governors for the organizational structure of the executive organ. It shall also transmit copies of this report to the Meeting of Signatories and to all Parties and Signatories as soon as it is available.

(h) By not later than five years after entry into force of this Agreement, the Assembly of Parties, after having considered the report of the Board of Governors referred to in paragraph (g) of this Article and any views which may have been expressed by the Meeting of Signatories thereon, shall adopt the organizational structure of the executive organ which shall be consistent with the provisions of Article XI of this Agreement.

(i) The Director General shall assume office one year before the end of the management services contract referred to in subparagraph (a) (ii) of this Article or by December 31, 1976, whichever is earlier. The Board of Governors shall appoint the Director General, and the Assembly of Parties shall act upon the confirmation of the appointment, in time to enable the Director General to assume office in accordance with this paragraph. Upon his assumption of office, the Director General shall be responsible for all

management services, including the performance of the functions performed by the Secretary General up to that time, and for the supervision of the performance of the management services contractor.

(j) The Director General, acting under relevant policies and directives of the Board of Governors, shall take all necessary steps to ensure that the permanent management arrangements are fully implemented not later than the end of the sixth year after the date of entry into force of this Agreement.

ARTICLE XIII

(Procurement)

(a) Subject to this Article, procurement of goods and services required by INTELSAT shall be effected by the award of contracts, based on responses to open international invitations to tender, to bidders offering the best combination of quality, price and the most favorable delivery time. The services to which this Article refers are those provided by juridical persons.

(b) If there is more than one bid offering such a combination, the contract shall be awarded so as to stimulate, in the interests of INTELSAT, world-wide competition.

(c) The requirement of open international invitations to tender may be dispensed with in those cases specifically referred to in Article 16 of the Operating Agreement.

ARTICLE XIV

(Rights and Obligations of Members)

(a) The Parties and Signatories shall exercise their rights and meet their obligations under this Agreement in a manner fully consistent with and in furtherance of the principles stated in the Preamble and other provisions of this Agreement.

(b) All Parties and all Signatories shall be allowed to attend and participate in all conferences and meetings, in which they are entitled to be represented in accordance with any provisions of this Agreement or the Operating Agreement, as well as in any other meeting called by or held under the auspices of INTELSAT, in accordance with the arrangements made by INTELSAT for such meetings regardless of where they may take place. The executive organ shall ensure that arrangements with the host Party or Signatory for each such conference or meeting shall include a provision for the admission to the host country and sojourn for the duration of such conference or meeting, of representatives of all Parties and all Signatories entitled to attend.

(c) To the extent that any Party or Signatory or person within the jurisdiction of a Party intends to establish, acquire or utilize space segment facilities separate from the INTELSAT space segment facilities to meet its domestic public telecommunications services requirements, such Party or Signatory, prior to the establishment, acquisition or utilization of such facilities, shall consult the Board of Governors, which shall express, in the form of recommendations, its findings regarding the technical compatibility of such facilities and their operation with the use of the radio

frequency spectrum and orbital space by the existing or planned INTELSAT space segment.

(d) To the extent that any Party or Signatory or person within the jurisdiction of a Party intends individually or jointly to establish, acquire or utilize space segment facilities separate from the INTELSAT space segment facilities to meet its international public telecommunications services requirements, such Party or Signatory, prior to the establishment, acquisition or utilization of such facilities, shall furnish all relevant information to and shall consult with the Assembly of Parties, through the Board of Governors, to ensure technical compatibility of such facilities and their operation with the use of the radio frequency spectrum and orbital space by the existing or planned INTELSAT space segment and to avoid significant economic harm to the global system of INTELSAT. Upon such consultation, the Assembly of Parties, taking into account the advice of the Board of Governors, shall express, in the form of recommendations, its findings regarding the considerations set out in this paragraph, and further regarding the assurance that the provision or utilization of such facilities shall not prejudice the establishment of direct telecommunication links through the INTELSAT space segment among all the participants.

(e) To the extent that any Party or Signatory or person within the jurisdiction of a party intends to establish, acquire or utilize space segment facilities separate from the INTELSAT space segment facilities to meet its specialized telecommunications services requirements, domestic or international, such Party or Signatory, prior to the establishment, acquisition or utilization of such facilities, shall furnish all relevant information to the Assembly of Parties, through the Board of Governors.

The Assembly of Parties, taking into account the advice of the Board of Governors, shall express, in the form of recommendations, its findings regarding the technical compatibility of such facilities and their operation with the use of the radio frequency spectrum and orbital space by the existing or planned INTELSAT space segment.

(f) Recommendations by the Assembly of Parties or the Board of Governors pursuant to this Article shall be made within a period of six months from the date of commencing the procedures provided for in the foregoing paragraphs. An extraordinary meeting of the Assembly of Parties may be convened for this purpose.

(g) This Agreement shall not apply to the establishment, acquisition or utilization of space segment facilities separate from the INTELSAT space segment facilities solely for national security purposes.

ARTICLE XV

(INTELSAT Headquarters, Privileges, Exemptions, Immunities)

(a) The headquarters of INTELSAT shall be in Washington.

(b) Within the scope of activities authorized by this Agreement, INTELSAT and its property shall be exempt in all States Party to this Agreement from all national income and direct national property taxation and from customs duties on communications satellites and components and parts for such satellites to be launched for use in the global system. Each Party undertakes to use its best endeavors to bring about, in accordance with the applicable domestic procedure, such further exemption of INTELSAT and its property from income and direct property taxation, and customs duties, as is desirable, bearing in mind the particular nature of INTELSAT.

(c) Each Party other than the Party in whose territory the headquarters of INTELSAT is located shall grant in accordance with the Protocol referred to in this paragraph, and the Party in whose territory the headquarters of INTELSAT is located shall grant in accordance with the Headquarters Agreement referred to in this paragraph, the appropriate privileges, exemptions and immunities to INTELSAT, to its officers, and to those categories of its employees specified in such Protocol and Headquarters Agreement, to Parties and representatives of Parties, to Signatories and representatives of Signatories and to persons participating in arbitration proceedings. In particular, each Party shall grant to these individuals immunity from legal process in respect of acts done or words written or spoken in the exercise of their functions and within the limits of their duties, to the extent and in the cases to be provided for in the Headquarters Agreement and Protocol referred to in this paragraph. The Party in whose territory the headquarters of INTELSAT is located shall, as soon as possible, conclude a Headquarters Agreement with INTELSAT covering privileges, exemptions and immunities. The Headquarters Agreement shall include a provision that all Signatories acting in their capacity as such, except the Signatory designated by the Party in whose territory the headquarters is located, shall be exempt from national taxation on income earned from INTELSAT in the territory of such Party. The other Parties shall also as soon as possible conclude a Protocol covering privileges, exemptions and immunities. The Headquarters Agreement and the Protocol shall be independent of this Agreement and each shall prescribe the conditions of its termination.

ARTICLE XVI

(Withdrawal)

- (a) (i) Any Party or Signatory may withdraw voluntarily from INTELSAT. A Party shall give written notice to the Depositary of its decision to withdraw. The decision of a Signatory to withdraw shall be notified in writing to the executive organ by the Party which has designated it and such notification shall signify the acceptance by the Party of such notification of decision to withdraw.
- (ii) Voluntary withdrawal shall become effective and this Agreement and the Operating Agreement shall cease to be in force for a Party or Signatory three months after the date of receipt of the notice referred to in subparagraph (i) of this paragraph or, if the notice so states, on the date of the next determination of investment shares pursuant to subparagraph (c) (ii) of Article 6 of the Operating Agreement following the expiration of such three months.
- (b) (i) If a Party appears to have failed to comply with any obligation under this Agreement, the Assembly of Parties, having received notice to that effect or acting on its own initiative, and having considered any representations made by the Party, may decide, if it finds that the failure to comply has in fact occurred, that the Party be deemed to have withdrawn from INTELSAT. This Agreement shall cease

to be in force for the Party as of the date of such decision. An extraordinary meeting of the Assembly of Parties may be convened for this purpose.

- (ii) If any Signatory, in its capacity as such, appears to have failed to comply with any obligation under this Agreement or the Operating Agreement, other than obligations under paragraph (a) of Article 4 of the Operating Agreement and the failure to comply shall not have been remedied within three months after the Signatory has been notified in writing by the executive organ of a resolution of the Board of Governors taking note of the failure to comply, the Board of Governors may, after considering any representations made by the Signatory or the Party which designated it, suspend the rights of the Signatory, and may recommend to the Meeting of Signatories that the Signatory be deemed to have withdrawn from INTELSAT. If the Meeting of Signatories, after consideration of any representations made by the Signatory or by the Party which designated it, approves the recommendation of the Board of Governors, the withdrawal of the Signatory shall become effective upon the date of the approval, and this Agreement and the Operating Agreement shall cease to be in force for the Signatory as of that date.

- (c) If any Signatory fails to pay any amount due from it pursuant to paragraph (a) of Article 4 of the Operating Agreement within three months after the payment has become due, the rights of the Signatory under this Agreement and the Operating Agreement shall be automatically suspended.

If within three months after the suspension the Signatory has not paid all sums due or the Party which has designated the Signatory has not made a substitution pursuant to paragraph (f) of this Article, the Board of Governors, after considering any representations made by the Signatory or by the Party which has designated it, may recommend to the Meeting of Signatories that the Signatory be deemed to have withdrawn from INTELSAT. The Meeting of Signatories, after considering any representations made by the Signatory, may decide that the Signatory be deemed to have withdrawn from INTELSAT and, from the date of the decision, this Agreement and the Operating Agreement shall cease to be in force for the Signatory.

(d) Withdrawal of a Party, in its capacity as such, shall entail the simultaneous withdrawal of the Signatory designated by the Party or of the Party in its capacity as Signatory, as the case may be, and this Agreement and the Operating Agreement shall cease to be in force for the Signatory on the same date on which this Agreement ceases to be in force for the Party which has designated it.

(e) In all cases of withdrawal of a Signatory from INTELSAT, the Party which designated the Signatory shall assume the capacity of a Signatory, or shall designate a new Signatory effective as of the date of such withdrawal, or shall withdraw from INTELSAT.

(f) If for any reason a Party desires to substitute itself for its designated Signatory or to designate a new Signatory, it shall give written notice thereof to the Depository, and upon assumption by the new Signatory of all the outstanding obligations of the previously designated Signatory and upon signature of the Operating Agreement, this Agreement and the Operating Agreement shall enter into force for the new Signatory and thereupon shall cease to be in force for such previously designated Signatory.

(g) Upon the receipt by the Depositary or the executive organ, as the case may be, of notice of decision to withdraw pursuant to subparagraph (a) (i) of this Article, the Party giving notice and its designated Signatory, or the Signatory in respect of which notice has been given, as the case may be, shall cease to have any rights of representation and any voting rights in any organ of INTELSAT, and shall incur no obligation or liability after the receipt of the notice, except that the Signatory, unless the Board of Governors decides otherwise pursuant to paragraph (d) of Article 21 of the Operating Agreement, shall be responsible for contributing its share of the capital contributions necessary to meet both contractual commitments specifically authorized before such receipt and liabilities arising from acts or omissions before such receipt.

(h) During the period of suspension of the rights of a Signatory pursuant to subparagraph (b) (ii) or paragraph (c) of this Article, the Signatory shall continue to have all the obligations and liabilities of a Signatory under this Agreement and the Operating Agreement.

(i) If the Meeting of Signatories, pursuant to subparagraph (b) (ii) or paragraph (c) of this Article, decides not to approve the recommendation of the Board of Governors that the Signatory be deemed to have withdrawn from INTELSAT, as of the date of that decision the suspension shall be lifted and the Signatory shall thereafter have all rights under this Agreement and the Operating Agreement, provided that where a Signatory is suspended pursuant to paragraph (c) of this Article the suspension shall not be lifted until the Signatory has paid the amounts due from it pursuant to paragraph (a) of Article 4 of the Operating Agreement.

(j) If the Meeting of Signatories approves the recommendation of the Board of Governors pursuant to subparagraph (b) (ii) or paragraph (c) of this Article that a Signatory be deemed to have withdrawn from INTELSAT, that Signatory shall incur no obligation or liability after such approval, except that the Signatory, unless the Board of Governors decides otherwise pursuant to paragraph (d) of Article 21 of the Operating Agreement, shall be responsible for contributing its share of the capital contributions necessary to meet both contractual commitments specifically authorized before such approval and liabilities arising from acts or omissions before such approval.

(k) If the Assembly of Parties decides pursuant to subparagraph (b) (i) of this Article that a Party be deemed to have withdrawn from INTELSAT, the Party in its capacity as Signatory or its designated Signatory, as the case may be, shall incur no obligation or liability after such decision, except that the Party in its capacity as Signatory or its designated Signatory, as the case may be, unless the Board of Governors decides otherwise pursuant to paragraph (d) of Article 21 of the Operating Agreement, shall be responsible for contributing its share of the capital contributions necessary to meet both contractual commitments specifically authorized before such decision and liabilities arising from acts or omissions before such decision.

(l) Settlement between INTELSAT and a Signatory for which this Agreement and the Operating Agreement have ceased to be in force, other than in the case of substitution pursuant to paragraph (f) of this Article, shall be accomplished as provided in Article 21 of the Operating Agreement.

- (m) (i) Notification of the decision of a Party to withdraw pursuant to subparagraph (a) (i) of this Article shall be transmitted by the Depositary to all Parties and to the executive organ, and the latter shall transmit the notification to all Signatories.
- (ii) If the Assembly of Parties decides that a Party shall be deemed to have withdrawn from INTELSAT pursuant to subparagraph (b) (i) of this Article, the executive organ shall notify all Signatories and the Depositary, and the latter shall transmit the notification to all Parties.
- (iii) Notification of the decision of a Signatory to withdraw pursuant to subparagraph (a) (i) of this Article or of the withdrawal of a Signatory pursuant to subparagraph (b) (ii) or paragraph (c) or (d) of this Article, shall be transmitted by the executive organ to all Signatories and to the Depositary, and the latter shall transmit the notification to all Parties.
- (iv) The suspension of a Signatory pursuant to subparagraph (b) (ii) or paragraph (c) of this Article shall be notified by the executive organ to all Signatories and to the Depositary, and the latter shall transmit the notification to all Parties.
- (v) The substitution of a Signatory pursuant to paragraph (f) of this Article shall be notified by the Depositary to all Parties and to the executive organ, and the latter shall transmit the notification to all Signatories.

(n) No Party or its designated Signatory shall be required to withdraw from INTELSAT as a direct result of any change in the status of that Party with regard to the International Telecommunication Union.

ARTICLE XVII

(Amendment)

(a) Any Party may propose amendments to this Agreement. Proposed amendments shall be submitted to the executive organ, which shall distribute them promptly to all Parties and Signatories.

(b) The Assembly of Parties shall consider each proposed amendment at its first ordinary meeting following its distribution by the executive organ, or at an earlier extraordinary meeting convened in accordance with the provisions of Article VII of this Agreement, provided that the proposed amendment has been distributed by the executive organ at least ninety days before the opening date of the meeting. The Assembly of Parties shall consider any views and recommendations which it receives from the Meeting of Signatories or the Board of Governors with respect to a proposed amendment.

(c) The Assembly of Parties shall take decisions on each proposed amendment in accordance with the provisions relating to quorum and voting contained in Article VII of this Agreement. It may modify any proposed amendment, distributed in accordance with paragraph (b) of this Article, and may also take decisions on any amendment not so distributed but directly consequential to a proposed or modified amendment.

(d) An amendment which has been approved by the Assembly of Parties shall enter into force in accordance with paragraph (e) of this Article after the Depositary has received notice of approval, acceptance or ratification of the amendment from either:

- (i) two-thirds of the States which were Parties as of the date upon which the amendment was approved by the Assembly of Parties, provided that such two-thirds include Parties which then held, or whose designated Signatories then held, at least two-thirds of the total investment shares; or
- (ii) a number of States equal to or exceeding eighty-five per cent of the total number of States which were Parties as of the date upon which the amendment was approved by the Assembly of Parties, regardless of the amount of investment shares such Parties or their designated Signatories then held.

(e) The Depositary shall notify all the Parties as soon as it has received the acceptances, approvals or ratifications required by paragraph (d) of this Article for the entry into force of an amendment. Ninety days after the date of issue of this notification, the amendment shall enter into force for all Parties, including those that have not yet accepted, approved, or ratified it and have not withdrawn from INTELSAT.

(f) Notwithstanding the provisions of paragraphs (d) and (e) of this Article, an amendment shall not enter into force less than eight months or more than eighteen months after the date it has been approved by the Assembly of Parties.

ARTICLE XVIII

(Settlement of Disputes)

(a) All legal disputes arising in connection with the rights and obligations under this Agreement or in connection with obligations undertaken by Parties pursuant to paragraph (c) of Article 14 or paragraph (c) of Article 15 of the Operating Agreement, between Parties with respect to each other, or between INTELSAT and one or more Parties, if not otherwise settled within a reasonable time, shall be submitted to arbitration in accordance with the provisions of Annex C to this Agreement. Any legal dispute arising in connection with the rights and obligations under this Agreement or the Operating Agreement between one or more Parties and one or more Signatories may be submitted to arbitration in accordance with the provisions of Annex C to this Agreement, provided that the Party or Parties and the Signatory or Signatories involved agree to such arbitration.

(b) All legal disputes arising in connection with the rights and obligations under this Agreement, or in connection with the obligations undertaken by Parties pursuant to paragraph (c) of Article 14 or paragraph (c) of Article 15 of the Operating Agreement, between a Party and a State which has ceased to be a Party or between INTELSAT and a State which has ceased to be a Party, and which arise after the State ceased to be a Party, if not otherwise settled within a reasonable time, shall be submitted to arbitration. Such arbitration shall be in accordance with the provisions of Annex C to this Agreement, provided that the State which has ceased to be a Party so agrees. If a State ceases to be a Party, or if a State or a telecommunications entity ceases to be a Signatory, after a dispute in which it is a disputant has been submitted to arbitration pursuant to paragraph (a) of this Article, the arbitration shall be continued and concluded.

(c) All legal disputes arising as a result of agreements between INTELSAT and any Party shall be subject to the provisions on settlement of disputes contained in such agreements. In the absence of such provisions, such disputes, if not otherwise settled, may be submitted to arbitration in accordance with the provisions of Annex C to this Agreement if the disputants so agree.

ARTICLE XIX

(Signature)

(a) This Agreement shall be open for signature at Washington from August 20, 1971 until it enters into force, or until a period of nine months has elapsed, whichever occurs first:

- (i) by the Government of any State party to the Interim Agreement;
- (ii) by the Government of any other State member of the International Telecommunication Union.

(b) Any Government signing this Agreement may do so without its signature being subject to ratification, acceptance or approval or with a declaration accompanying its signature that it is subject to ratification, acceptance or approval.

(c) Any State referred to in paragraph (a) of this Article may accede to this Agreement after it is closed for signature.

(d) No reservation may be made to this Agreement.

ARTICLE XX

(Entry Into Force)

(a) This Agreement shall enter into force sixty days after the date on which it has been signed not subject to ratification, acceptance or

approval, or has been ratified, accepted, approved or acceded to, by two-thirds of the States which were parties to the Interim Agreement as of the date upon which this Agreement is opened for signature, provided that:

- (i) such two-thirds include parties to the Interim Agreement which then held, or whose signatories to the Special Agreement then held, at least two-thirds of the quotas under the Special Agreement; and
- (ii) such parties or their designated telecommunications entities have signed the Operating Agreement.^[1]

Upon the commencement of such sixty days, the provisions of paragraph 2 of the Annex to the Operating Agreement shall enter into force for the purposes stated in that paragraph. Notwithstanding the foregoing provisions, this Agreement shall not enter into force less than eight months or more than eighteen months after the date it is opened for signature.

(b) For a State whose instrument of ratification, acceptance, approval or accession is deposited after the date this Agreement enters into force pursuant to paragraph (a) of this Article, this Agreement shall enter into force on the date of such deposit.

(c) Upon entry into force of this Agreement pursuant to paragraph (a) of this Article, it may be applied provisionally with respect to any State whose Government signed it subject to ratification, acceptance or approval if that Government so requests at the time of signature or at any time thereafter prior to the entry into force of this Agreement. Provisional application shall terminate:

- (i) upon deposit of an instrument of ratification, acceptance or approval of this Agreement by that Government;

¹ Feb. 12, 1973.

- (ii) upon expiration of two years from the date on which this Agreement enters into force without having been ratified, accepted or approved by that Government; or
- (iii) upon notification by that Government, before expiration of the period mentioned in subparagraph (ii) of this paragraph, of its decision not to ratify, accept or approve this Agreement.

If provisional application terminates pursuant to subparagraph (ii) or (iii) of this paragraph, the provisions of paragraphs (g) and (1) of Article XVI of this Agreement shall govern the rights and obligations of the Party and of its designated Signatory.

(d) Notwithstanding the provisions of this Article, this Agreement shall neither enter into force for any State nor be applied provisionally with respect to any State until the Government of that State or the telecommunications entity designated pursuant to this Agreement shall have signed the Operating Agreement.

(e) Upon entry into force, this Agreement shall replace and terminate the Interim Agreement.

ARTICLE XXI

(Miscellaneous Provisions)

(a) The official and working languages of INTELSAT shall be English, French and Spanish.

(b) Internal regulations for the executive organ shall provide for the prompt distribution to all Parties and Signatories of copies of any INTELSAT document in accordance with their requests.

(c) Consistent with the provisions of Resolution 1721 (XVI) of the General Assembly of the United Nations, the executive organ shall send to the Secretary General of the United Nations, and to the Specialized Agencies concerned, for their information, an annual report on the activities of INTELSAT.

ARTICLE XXII

(Depositary)

(a) The Government of the United States of America shall be the Depositary for this Agreement, with which shall be deposited declarations made pursuant to paragraph (b) of Article XIX of this Agreement, instruments of ratification, acceptance, approval or accession, requests for provisional application, and notifications of ratification, acceptance or approval of amendments, of decisions to withdraw from INTELSAT, or of termination of the provisional application of this Agreement.

(b) This Agreement, of which the English, French and Spanish texts are equally authentic, shall be deposited in the archives of the Depositary. The Depositary shall transmit certified copies of the text of this Agreement to all Governments that have signed it or deposited instruments of accession to it, and to the International Telecommunication Union, and shall notify those Governments, and the International Telecommunication Union, of signatures, of declarations made pursuant to paragraph (b) of Article XIX of this Agreement, of the deposit of instruments of ratification, acceptance, approval or accession, of requests for provisional application, of commencement of the sixty-day period referred to in paragraph (a) of Article XX of this Agreement, of the entry into force of this Agreement, of notifications of ratification, acceptance or approval of

amendments, of the entry into force of amendments, of decisions to withdraw from INTELSAT, of withdrawals and of terminations of provisional application of this Agreement. Notice of the commencement of the sixty-day period shall be issued on the first day of that period.

(c) Upon entry into force of this Agreement, the Depositary shall register it with the Secretariat of the United Nations in accordance with Article 102 of the Charter of the United Nations.^[1]

IN WITNESS WHEREOF the Plenipotentiaries gathered together in the city of Washington, who have submitted their full powers, found to be in good and due form, have signed this Agreement.

DONE at Washington, on the 20th day of August, one thousand nine hundred and seventy one.

¹ TS 993 ; 59 Stat. 1052.

ANNEX A

FUNCTIONS OF THE SECRETARY GENERAL

The functions of the Secretary General referred to in paragraph (b) of Article XII of this Agreement include the following:

- 1) maintain the INTELSAT traffic data projections and, for this purpose, convene periodic regional meetings in order to estimate traffic demands;
- 2) approve applications for access to the INTELSAT space segment by standard earth stations, report to the Board of Governors on applications for access by non-standard earth stations, and maintain records on dates of availability of existing and proposed earth stations;
- 3) maintain records based on reports submitted by Signatories, other earth station owners and the management services contractor, on the technical and operational capabilities and limitations of all existing and proposed earth stations;
- 4) maintain an office of record of the assignment of frequencies to users and arrange for the notification of frequencies to the International Telecommunication Union;
- 5) based on planning assumptions approved by the Board of Governors, prepare capital and operating budgets and estimates of revenue requirements;
- 6) recommend INTELSAT space segment utilization charges to the Board of Governors;
- 7) recommend accounting policies to the Board of Governors;
- 8) maintain books of account and make them available for audit as required by the Board of Governors, and prepare monthly and annual financial statements;

9) calculate the investment shares of Signatories, render accounts to Signatories for capital contributions and to allottees for INTELSAT space segment utilization charges, receive cash payments on behalf of INTELSAT, and make revenue distributions and other cash disbursements to Signatories on behalf of INTELSAT;

10) advise the Board of Governors of Signatories in default of capital contributions, and of allottees in default of payments for INTELSAT space segment utilization charges;

11) approve and pay invoices submitted to INTELSAT with respect to authorized purchases and contracts made by the executive organ, and reimburse the management services contractor for expenditures incurred in connection with purchases and contracts made on behalf of INTELSAT and authorized by the Board of Governors;

12) administer INTELSAT personnel benefit programs and pay salaries and authorized expenses of INTELSAT personnel;

13) invest or deposit funds on hand, and draw upon such investments or deposits as necessary to meet INTELSAT obligations;

14) maintain INTELSAT property and depreciation accounts, and arrange with the management services contractor and the appropriate Signatories for the necessary inventories of INTELSAT property;

15) recommend terms and conditions of allotment agreements for utilization of the INTELSAT space segment;

16) recommend insurance programs for protection of INTELSAT property and, as authorized by the Board of Governors, arrange for necessary coverage;

17) for the purpose of paragraph (d) of Article XIV of this Agreement, analyze and report to the Board of Governors on the estimated economic effects to INTELSAT of any proposed space segment facilities separate from the INTELSAT space segment facilities;

18) prepare the tentative agenda for meetings of the Assembly of Parties, the Meeting of Signatories and the Board of Governors and their advisory committees, and the provisional summary records of such meetings, and assist the chairmen of advisory committees in preparation of their agenda, records and reports to the Assembly of Parties, the Meeting of Signatories and the Board of Governors;

19) arrange for interpretation services, for the translation, reproduction, and distribution of documents, and for the preparation of verbatim records of meetings, as necessary;

20) provide the history of the decisions taken by the Assembly of Parties, the Meeting of Signatories and the Board of Governors, and prepare reports and correspondence relating to decisions taken during their meetings;

21) assist in the interpretation of the rules of procedure of the Assembly of Parties, the Meeting of Signatories and the Board of Governors, and the terms of reference for their advisory committees;

22) make arrangements for any meetings of the Assembly of Parties, the Meeting of Signatories and the Board of Governors and of their advisory committees;

23) recommend procedures and regulations for contracts and purchases made on behalf of INTELSAT;

24) keep the Board of Governors informed on the performance of the obligations of contractors, including the management services contractor;

25) compile and maintain a world-wide list of bidders for all INTELSAT procurement;

26) negotiate, place and administer contracts necessary to enable the Secretary General to perform his assigned functions, including contracts for obtaining assistance from other entities to perform such functions;

27) provide or arrange for the provision of legal advice to INTELSAT, as required in connection with the functions of the Secretary General;

28) provide appropriate public information services; and

29) arrange and convene conferences for negotiation of the Protocol covering privileges, exemptions and immunities, referred to in paragraph (c) of Article XV of this Agreement.

ANNEX B

FUNCTIONS OF THE MANAGEMENT SERVICES
CONTRACTOR AND GUIDELINES OF THE
MANAGEMENT SERVICES CONTRACT

1) Pursuant to Article XII of this Agreement, the management services contractor shall perform the following functions:

- (a) recommend to the Board of Governors research and development programs directly related to the purposes of INTELSAT;
- (b) as authorized by the Board of Governors:
 - (i) conduct studies and research and development, directly or under contract with other entities or persons,
 - (ii) conduct system studies in the fields of engineering, economics and cost effectiveness,
 - (iii) perform system simulation tests and evaluations, and
 - (iv) study and forecast potential demands for new telecommunications satellite services;
- (c) advise the Board of Governors on the need to procure space segment facilities for the INTELSAT space segment;
- (d) as authorized by the Board of Governors, prepare and distribute requests for proposals, including specifications, for procurement of space segment facilities;
- (e) evaluate all proposals submitted in response to requests for proposals and make recommendations to the Board of Governors on such proposals;
- (f) pursuant to procurement regulations and in accordance with decisions of the Board of Governors;

- (i) negotiate, place, amend and administer all contracts on behalf of INTELSAT for space segments,
 - (ii) make arrangements for launch services and necessary supporting activities, and cooperate in launches,
 - (iii) arrange insurance coverage to protect the INTELSAT space segment as well as equipment designated for launch or launch services,
 - (iv) provide or arrange for the provision of services for tracking, telemetry, command and control of the telecommunications satellites, including coordination of the efforts of Signatories and other owners of earth stations participating in the provision of these services, to perform satellite positioning, maneuvers, and tests, and
 - (v) provide or arrange for the provision of services for monitoring satellite performance characteristics, outages, and effectiveness, and the satellite power and frequencies used by the earth stations, including coordination of the efforts of Signatories and other owners of earth stations participating in the provision of these services;
- (g) recommend to the Board of Governors frequencies for use by the INTELSAT space segment and location plans for telecommunications satellites;
- (h) operate the INTELSAT Operations Center and the Spacecraft Technical Control Center;

(i) recommend to the Board of Governors standard earth station performance characteristics, both mandatory and non-mandatory;

(j) evaluate applications for access to the INTELSAT space segment by non-standard earth stations;

(k) allot units of INTELSAT space segment capacity, as determined by the Board of Governors;

(l) prepare and coordinate system operations plans (including network configuration studies and contingency plans), procedures, guides, practices and standards, for adoption by the Board of Governors;

(m) prepare, coordinate and distribute frequency plans for assignment to earth stations having access to the INTELSAT space segment;

(n) prepare and distribute system status reports, to include actual and projected system utilization;

(o) distribute information to Signatories and other users on new telecommunications services and methods;

(p) for the purpose of paragraph (d) of Article XIV of this Agreement, analyze and report to the Board of Governors on the estimated technical and operational effect on INTELSAT of any proposed space segment facilities separate from the INTELSAT space segment facilities, including the effect on the frequency and location plans of INTELSAT;

(q) provide the Secretary General with the information necessary for the performance of his responsibility to the Board of Governors pursuant to paragraph 24 of Annex A to this Agreement;

(r) make recommendations relating to the acquisition, disclosure, distribution and protection of rights in inventions and technical information in accordance with Article 17 of the Operating Agreement;

(s) pursuant to decisions of the Board of Governors, arrange to make available to Signatories and others the rights of INTELSAT in inventions and technical information in accordance with Article 17 of the Operating Agreement, and enter into licensing agreements on behalf of INTELSAT; and

(t) take all operational, technical, financial, procurement, administrative and supporting actions necessary to carry out the above listed functions.

2) The management services contract shall include appropriate terms to implement the relevant provisions of Article XII of this Agreement and to provide for:

(a) reimbursement by INTELSAT in US dollars of all direct and indirect costs documented and identified, properly incurred by the management services contractor under the contract;

(b) payment to the management services contractor of a fixed fee at an annual rate in US dollars to be negotiated between the Board of Governors and the contractor;

(c) periodic review by the Board of Governors in consultation with the management services contractor of the costs under subparagraph (a) of this paragraph;

(d) compliance with procurement policies and procedures of INTELSAT, consistent with the relevant provisions of this Agreement and the Operating Agreement, in the solicitation and negotiation of contracts on behalf of INTELSAT;

(e) provisions with respect to inventions and technical information which are consistent with Article 17 of the Operating Agreement;

(f) technical personnel selected by the Board of Governors, with the concurrence of the management services contractor, from among persons nominated by Signatories, to participate in the assessment of designs and of specifications for equipment for the space segment;

(g) disputes or disagreements between INTELSAT and the management services contractor which may arise under the management services contract to be settled in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce; and

(h) the furnishing by the management services contractor to the Board of Governors of such information as may be required by any Governor to enable him to discharge his responsibilities as a Governor.

ANNEX C

PROVISIONS ON PROCEDURES RELATING TO
SETTLEMENT OF DISPUTES REFERRED TO IN
ARTICLE XVIII OF THIS AGREEMENT AND
ARTICLE 20 OF THE OPERATING AGREEMENT

ARTICLE 1

The only disputants in arbitration proceedings instituted in accordance with this Annex shall be those referred to in Article XVIII of this Agreement, and Article 20 of, and the Annex to, the Operating Agreement.

ARTICLE 2

An arbitral tribunal of three members duly constituted in accordance with the provisions of this Annex shall be competent to give a decision in any dispute cognizable pursuant to Article XVIII of this Agreement, and Article 20 of, and the Annex to, the Operating Agreement.

ARTICLE 3

(a) Not later than sixty days before the opening date of the first and each subsequent ordinary meeting of the Assembly of Parties, each Party may submit to the executive organ the names of not more than two legal experts who will be available for the period from the end of such meeting until the end of the next ordinary meeting of the Assembly of Parties to serve as presidents or members of tribunals constituted in accordance with this Annex. From such nominees the executive organ shall prepare a list of all the persons thus nominated and shall attach to this list any biographical particulars submitted by the nominating Party, and shall distribute such list to all Parties not later than thirty days before the opening date of the meeting in question. If for any reason a nominee becomes unavailable for selection

to the panel during the sixty-day period before the opening date of the meeting of the Assembly of Parties, the nominating Party may, not later than fourteen days before the opening date of the meeting of the Assembly of Parties, substitute the name of another legal expert.

(b) From the list mentioned in paragraph (a) of this Article, the Assembly of Parties shall select eleven persons to be members of a panel from which presidents of tribunals shall be selected, and shall select an alternate for each such member. Members and alternates shall serve for the period prescribed in paragraph (a) of this Article. If a member becomes unavailable to serve on the panel, he shall be replaced by his alternate.

(c) For the purpose of designating a chairman, the panel shall be convened to meet by the executive organ as soon as possible after the panel has been selected. The quorum for a meeting of the panel shall be nine of the eleven members. The panel shall designate one of its members as its chairman by a decision taken by the affirmative votes of at least six members, cast in one or, if necessary, more than one secret ballot. The chairman so designated shall hold office as chairman for the rest of his period of office as a member of the panel. The cost of the meeting of the panel shall be regarded as an administrative cost of INTELSAT for the purpose of Article 8 of the Operating Agreement.

(d) If both a member of the panel and the alternate for that member become unavailable to serve, the Assembly of Parties shall fill the vacancies thus created from the list referred to in paragraph (a) of this Article. If, however, the Assembly of Parties does not meet

within ninety days subsequent to the occurrence of the vacancies, they shall be filled by selection by the Board of Governors from the list referred to in paragraph (a) of this Article, with each Governor having one vote. A person selected to replace a member or alternate whose term of office has not expired shall hold office for the remainder of the term of his predecessor. Vacancies in the office of the chairman of the panel shall be filled by the panel by designation of one of its members in accordance with the procedure prescribed in paragraph (c) of this Article.

(e) In selecting the members of the panel and the alternates in accordance with paragraph (b) or (d) of this Article, the Assembly of Parties or the Board of Governors shall seek to ensure that the composition of the panel will always be able to reflect an adequate geographical representation, as well as the principal legal systems as they are represented among the Parties.

(f) Any panel member or alternate serving on an arbitral tribunal at the expiration of his term shall continue to serve until the conclusion of any arbitral proceeding pending before such tribunal.

(g) If, during the period between the date of entry into force of this Agreement and the establishment of the first panel and alternates pursuant to the provisions of paragraph (b) of this Article, a legal dispute arises between the disputants mentioned in Article 1 of this Annex, the panel as constituted in accordance with paragraph (b) of Article 3 of the Supplementary Agreement on Arbitration dated June 4, 1965, shall be the panel for use in connection with the settlement of that dispute. That panel shall act in accordance with the provisions

of this Annex for the purposes of Article XVIII of this Agreement, and Article 20 of, and the Annex to, the Operating Agreement.

ARTICLE 4

(a) Any petitioner wishing to submit a legal dispute to arbitration shall provide each respondent and the executive organ with a document which contains:

- (i) a statement which fully describes the dispute being submitted for arbitration, the reasons why each respondent is required to participate in the arbitration, and the relief being requested;
- (ii) a statement which sets forth why the subject matter of the dispute comes within the competence of a tribunal to be constituted in accordance with this Annex, and why the relief being requested can be granted by such tribunal if it finds in favor of the petitioner;
- (iii) a statement explaining why the petitioner has been unable to achieve a settlement of the dispute within a reasonable time by negotiation or other means short of arbitration;
- (iv) in the case of any dispute for which, pursuant to Article XVIII of this Agreement or Article 20 of the Operating Agreement, the agreement of the disputants is a condition for arbitration in accordance with this Annex, evidence of such agreement; and
- (v) the name of the person designated by the petitioner to serve as a member of the tribunal.

(b) The executive organ shall promptly distribute to each Party and Signatory, and to the chairman of the panel, a copy of the document provided pursuant to paragraph (a) of this Article.

ARTICLE 5

(a) Within sixty days from the date copies of the document described in paragraph (a) of Article 4 of this Annex have been received by all the respondents, the side of the respondents shall designate an individual to serve as a member of the tribunal. Within that period, the respondents may, jointly or individually, provide each disputant and the executive organ with a document stating their responses to the document referred to in paragraph (a) of Article 4 of this Annex and including any counter-claims arising out of the subject matter of the dispute. The executive organ shall promptly furnish the chairman of the panel with a copy of any such document.

(b) In the event of a failure by the side of the respondents to make such a designation within the period allowed, the chairman of the panel shall make a designation from among the experts whose names were submitted to the executive organ pursuant to paragraph (a) of Article 3 of this Annex.

(c) Within thirty days after the designation of the two members of the tribunal, they shall agree on a third person selected from the panel constituted in accordance with Article 3 of this Annex, who shall serve as the president of the tribunal. In the event of failure to reach agreement within such period of time, either of the two members designated may inform the chairman of the panel, who, within ten days, shall designate a member of the panel other than himself to serve as president of the tribunal.

(d) The tribunal is constituted as soon as the president is selected.

ARTICLE 6

(a) If a vacancy occurs in the tribunal for reasons which the president or the remaining members of the tribunal decide are beyond the control of the disputants, or are compatible with the proper conduct of the arbitration proceedings, the vacancy shall be filled in accordance with the following provisions:

- (i) if the vacancy occurs as a result of the withdrawal of a member appointed by a side to the dispute, then that side shall select a replacement within ten days after the vacancy occurs;
- (ii) if the vacancy occurs as a result of the withdrawal of the president of the tribunal or of another member of the tribunal appointed by the chairman, a replacement shall be selected from the panel in the manner described in paragraph (c) or (b) respectively of Article 5 of this Annex.

(b) If a vacancy occurs in the tribunal for any reason other than as described in paragraph (a) of this Article, or if a vacancy occurring pursuant to that paragraph is not filled, the remainder of the tribunal shall have the power, notwithstanding the provisions of Article 2 of this Annex, upon the request of one side, to continue the proceedings and give the final decision of the tribunal.

ARTICLE 7

- (a) The tribunal shall decide the date and place of its sittings.
- (b) The proceedings shall be held in private and all material presented to the tribunal shall be confidential, except that INTELSAT and the Parties whose designated Signatories and the Signatories whose designating Parties are disputants in the proceedings shall have the right to be present and shall have access to the material presented. When INTELSAT is a disputant in the proceedings, all Parties and all Signatories shall have the right to be present and shall have access to the material presented.
- (c) In the event of a dispute over the competence of the tribunal, the tribunal shall deal with this question first, and shall give its decision as soon as possible.
- (d) The proceedings shall be conducted in writing, and each side shall have the right to submit written evidence in support of its allegations of fact and law. However, oral arguments and testimony may be given if the tribunal considers it appropriate.
- (e) The proceedings shall commence with the presentation of the case of the petitioner containing its arguments, related facts supported by evidence and the principles of law relied upon. The case of the petitioner shall be followed by the counter-case of the respondent. The petitioner may submit a reply to the counter-case of the respondent. Additional pleadings shall be submitted only if the tribunal determines they are necessary.
- (f) The tribunal may hear and determine counter-claims arising directly out of the subject matter of the dispute, provided the

counter-claims are within its competence as defined in Article XVIII of this Agreement, and Article 20 of, and the Annex to, the Operating Agreement.

(g) If the disputants reach an agreement during the proceedings, the agreement shall be recorded in the form of a decision of the tribunal given by consent of the disputants.

(h) At any time during the proceedings, the tribunal may terminate the proceedings if it decides the dispute is beyond its competence as defined in Article XVIII of the Agreement, and Article 20 of, and the Annex to, the Operating Agreement.

(i) The deliberations of the tribunal shall be secret.

(j) The decisions of the tribunal shall be presented in writing and shall be supported by a written opinion. Its rulings and decisions must be supported by at least two members. A member dissenting from the decision may submit a separate written opinion.

(k) The tribunal shall forward its decision to the executive organ, which shall distribute it to all Parties and Signatories.

(l) The tribunal may adopt additional rules of procedure, consistent with those established by this Annex, which are necessary for the proceedings.

ARTICLE 8

If one side fails to present its case, the other side may call upon the tribunal to give a decision in its favor. Before giving its decision, the tribunal shall satisfy itself that it has competence and that the case is well-founded in fact and in law.

ARTICLE 9

(a) Any Party whose designated Signatory is a disputant in a case shall have the right to intervene and become an additional disputant in the case. Intervention shall be made by giving notice thereof in writing to the tribunal and to the other disputants.

(b) Any other Party, any Signatory or INTELSAT, if it considers that it has a substantial interest in the decision of the case, may petition the tribunal for permission to intervene and become an additional disputant in the case. If the tribunal determines that the petitioner has a substantial interest in the decision of the case, it shall grant the petition.

ARTICLE 10

Either at the request of a disputant, or upon its own initiative, the tribunal may appoint such experts as it deems necessary to assist it.

ARTICLE 11

Each Party, each Signatory and INTELSAT shall provide all information determined by the tribunal, either at the request of a disputant or upon its own initiative, to be required for the handling and determination of the dispute.

ARTICLE 12

During the course of its consideration of the case, the tribunal may, pending the final decision, indicate any provisional measures which it considers would preserve the respective rights of the disputants.

ARTICLE 13

(a) The decision of the tribunal shall be based on

(i) this Agreement and the Operating Agreement; and

(ii) generally accepted principles of law.

(b) The decision of the tribunal, including any reached by agreement of the disputants pursuant to paragraph (g) of Article 7 of this Annex, shall be binding on all the disputants and shall be carried out by them in good faith. In a case in which INTELSAT is a disputant, and the tribunal decides that a decision of one of its organs is null and void as not being authorized by or in compliance with this Agreement and the Operating Agreement, the decision of the tribunal shall be binding on all Parties and Signatories.

(c) In the event of a dispute as to the meaning or scope of its decision, the tribunal shall construe it at the request of any disputant.

ARTICLE 14

Unless the tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of the members of the tribunal, shall be borne in equal shares by each side. Where a side consists of more than one disputant, the share of that side shall be apportioned by the tribunal among the disputants on that side. Where INTELSAT is a disputant, its expenses associated with the arbitration shall be regarded as an administrative cost of INTELSAT for the purpose of Article 8 of the Operating Agreement.

ANNEX D

TRANSITION PROVISIONS

1) Continuity of INTELSAT Activities

Any decision of the Interim Communications Satellite Committee taken pursuant to the Interim Agreement or the Special Agreement and which is in effect as of the termination of those Agreements shall remain in full force and effect, unless and until it is modified or repealed by, or in implementation of, the terms of this Agreement or the Operating Agreement.

2) Management

During the period immediately following entry into force of this Agreement, the Communications Satellite Corporation shall continue to act as the manager for the design, development, construction, establishment, operation and maintenance of the INTELSAT space segment pursuant to the same terms and conditions of service which were applicable to its role as manager pursuant to the Interim Agreement and the Special Agreement. In the discharge of its functions it shall be bound by all the relevant provisions of this Agreement and the Operating Agreement and shall in particular be subject to the general policies and specific determinations of the Board of Governors, until:

- (i) the Board of Governors determines that the executive organ is ready to assume responsibility for performance of all or certain of the functions of the executive organ pursuant to Article XII of this Agreement, at which time the Communications Satellite Corporation

shall be relieved of its responsibility for performance of each such function as it is assumed by the executive organ; and

- (ii) the management services contract referred to in subparagraph (a)(ii) of Article XII of this Agreement takes effect, at which time the provisions of this paragraph shall cease to have effect with respect to those functions within the scope of that contract.

3) Regional Representation

During the period between entry into force of this Agreement and the date of assumption of office by the Secretary General, the entitlement, consistent with paragraph (c) of Article IX of this Agreement, of any group of Signatories seeking representation on the Board of Governors, pursuant to subparagraph (a)(iii) of Article IX of this Agreement, shall become effective upon receipt by the Communications Satellite Corporation of a written request from such group.

4) Privileges and Immunities

The Parties to this Agreement which were parties to the Interim Agreement shall extend to the corresponding successor persons and bodies until such times as the Headquarters Agreement and the Protocol, as the case may be, enter into force as provided for in Article XV of this Agreement, those privileges, exemptions and immunities which were extended by such Parties, immediately prior to entry into force of this Agreement, to the International Telecommunications Satellite Consortium, to the signatories to the Special Agreement and to the Interim Communications Satellite Committee and to representatives thereto.

* * *

**OPERATING AGREEMENT
RELATING TO THE
INTERNATIONAL TELECOMMUNICATIONS
SATELLITE ORGANIZATION
"INTELSAT"**

PREAMBLE

The Signatories to this Operating Agreement:

Considering that the States Parties to the Agreement Relating to the International Telecommunications Satellite Organization "INTELSAT" have undertaken therein to sign or to designate a telecommunications entity to sign this Operating Agreement,

Agree as follows:

ARTICLE 1

(Definitions)

(a) For the purpose of this Operating Agreement:

- (i) "Agreement" means the Agreement Relating to the International Telecommunications Satellite Organization "INTELSAT";
- (ii) "Amortization" includes depreciation; and
- (iii) "Assets" includes every subject of whatever nature to which a right of ownership can attach, as well as contractual rights.

(b) The definitions in Article I of the Agreement shall apply to this Operating Agreement.

ARTICLE 2

(Rights and Obligations of Signatories)

Each Signatory acquires the rights provided for Signatories in the Agreement and this Operating Agreement and undertakes to fulfill the obligations placed upon it by those Agreements.

ARTICLE 3

(Transfer of Rights and Obligations)

(a) As of the date the Agreement and this Operating Agreement enter into force and subject to the requirements of Article 19 of this Operating Agreement:

- (i) all of the property and contractual rights and all other rights, including rights in and to the space segment, owned in undivided shares by the signatories to the Special Agreement pursuant to the Interim Agreement and the Special Agreement as of such date, shall be owned by INTELSAT;
- (ii) all of the obligations and liabilities undertaken or incurred by or on behalf of the signatories to the Special Agreement collectively in carrying out the provisions of the Interim Agreement and the Special Agreement which are outstanding as of, or arise from acts or omissions prior to, such date shall become obligations and liabilities of INTELSAT. However, this subparagraph shall not apply to any such obligation or liability arising from actions or

decisions taken after the opening for signature of the Agreement which, after the entry into force of the Agreement, could not have been taken by the Board of Governors without prior authorization of the Assembly of Parties pursuant to paragraph (f) of Article III of the Agreement.

(b) INTELSAT shall be the owner of the INTELSAT space segment and of all other property acquired by INTELSAT.

(c) The financial interest in INTELSAT of each Signatory shall be equal to the amount arrived at by the application of its investment share to the valuation effected pursuant to Article 7 of this Operating Agreement.

ARTICLE 4

(Financial Contributions)

(a) Each Signatory shall make contributions to the capital requirements of INTELSAT, as determined by the Board of Governors in accordance with the terms of the Agreement and this Operating Agreement, in proportion to its investment share as determined pursuant to Article 6 of this Operating Agreement and shall receive capital repayment and compensation for use of capital in accordance with the provisions of Article 8 of this Operating Agreement.

(b) Capital requirements shall include all direct and indirect costs for the design, development, construction and establishment of the INTELSAT space segment and for other INTELSAT property, as well as requirements for contributions by Signatories pursuant to paragraph (f) of Article 8 and paragraph (b) of Article 18 of this Operating Agreement. The Board of Governors shall determine the financial requirements of INTELSAT which shall be met from capital contributions from the Signatories.

(c) Each Signatory, as user of the INTELSAT space segment, as well as all other users, shall pay appropriate utilization charges established in accordance with the provisions of Article 8 of this Operating Agreement.

(d) The Board of Governors shall determine the schedule of payments required pursuant to this Operating Agreement. Interest at a rate to be determined by the Board of Governors shall be added to any amount unpaid after the date designated for payment.

ARTICLE 5

(Capital Ceiling)

(a) The sum of the net capital contributions of the Signatories and of the outstanding contractual capital commitments of INTELSAT shall be subject to a ceiling. This sum shall consist of the cumulative capital contributions made by the signatories to the Special Agreement, pursuant to Articles 3 and 4 of the Special Agreement, and by the Signatories to this Operating Agreement, pursuant to Article 4 of this Operating Agreement, less the cumulative capital repaid to them pursuant to the Special Agreement and to this Operating Agreement, plus the outstanding amount of contractual capital commitments of INTELSAT.

(b) The ceiling referred to in paragraph (a) of this Article shall be 500 million U.S. dollars or the amount authorized pursuant to paragraph (c) or (d) of this Article.

(c) The Board of Governors may recommend to the Meeting of Signatories that the ceiling in effect under paragraph (b) of this Article be increased. Such recommendation shall be considered by the Meeting of Signatories, and the increased ceiling shall become effective upon approval by the Meeting of Signatories.

(d) However, the Board of Governors may increase the ceiling up to ten percent above the limit of 500 million U.S. dollars or such higher limits as may be approved by the Meeting of Signatories pursuant to paragraph (c) of this Article.

ARTICLE 6

(Investment Shares)

(a) Except as otherwise provided in this Article, each Signatory shall have an investment share equal to its percentage of all utilization of the INTELSAT space segment by all Signatories.

(b) For the purpose of paragraph (a) of this Article, utilization of the INTELSAT space segment by a Signatory shall be measured by dividing the space segment utilization charges payable by the Signatory to INTELSAT by the number of days for which charges were payable during the six-month period prior to the effective date of a determination of investment shares pursuant to subparagraph (c) (i), (c) (ii) or (c) (v) of this Article. However, if the number of days for which charges were payable by a Signatory for utilization during such six-month period was less than ninety days, such charges shall not be taken into account in determining investment shares.

(c) Investment shares shall be determined effective as of:

- (i) the date of entry into force of this Operating Agreement;
- (ii) the first day of March of each year, provided that if this Operating Agreement enters into force less than six months before the succeeding first day of March, there shall be no determination under this subparagraph effective as of that date;

- (iii) the date of entry into force of this Operating Agreement for a new Signatory;
 - (iv) the effective date of withdrawal of a Signatory from INTELSAT; and
 - (v) the date of request by a Signatory for whom INTELSAT space segment utilization charges have, for the first time, become payable by that Signatory for utilization through its own earth station, provided that such date of request is not less than ninety days following the date the space segment utilization charges became payable.
- (d) (i) Any Signatory may request that, if any determination of investment shares made pursuant to paragraph (c) of this Article would result in its investment share exceeding its quota or investment share, as the case may be, held immediately prior to such determination, it be allocated a lesser investment share, provided that such investment share shall not be less than its final quota held pursuant to the Special Agreement or than its investment share held immediately prior to the determination, as the case may be. Such requests shall be deposited with INTELSAT and shall indicate the reduced investment share desired. INTELSAT shall give prompt notification of such requests to all Signatories, and such requests shall be honored to the extent that other Signatories accept greater investment shares.

- (ii) Any Signatory may notify INTELSAT that it is prepared to accept an increase in its investment share in order to accommodate requests for lesser investment shares made pursuant to subparagraph (i) of this paragraph and up to what limit, if any. Subject to such limits, the total amount of reduction in investment shares requested pursuant to subparagraph (i) of this paragraph shall be distributed among the Signatories which have accepted, pursuant to this subparagraph, greater investment shares, in proportion to the investment shares held by them immediately prior to the applicable adjustment.
- (iii) If reductions requested pursuant to subparagraph (i) of this paragraph cannot be wholly accommodated among the Signatories which have accepted greater investment shares pursuant to subparagraph (ii) of this paragraph, the total amount of accepted increases shall be allocated, up to the limits indicated by each Signatory accepting a greater investment share pursuant to this paragraph, as reductions to those Signatories which requested lesser investment shares pursuant to subparagraph (i) of this paragraph, in proportion to the reductions requested by them under subparagraph (i) of this paragraph.
- (iv) Any Signatory which has requested a lesser or accepted a greater investment share pursuant to this paragraph shall be deemed to have accepted the decrease or increase of its investment share, as determined pursuant to this para-

graph, until the next determination of investment shares pursuant to subparagraph (c) (ii) of this Article.

- (v) The Board of Governors shall establish appropriate procedures with regard to notification of requests by Signatories for lesser investment shares made pursuant to subparagraph (i) of this paragraph, and notification by Signatories which are prepared to accept increases in their investment shares pursuant to subparagraph (ii) of this paragraph.

(e) For the purposes of composition of the Board of Governors and calculation of the voting participation of Governors, the investment shares determined pursuant to subparagraph (c) (ii) of this Article shall take effect from the first day of the ordinary meeting of the Meeting of Signatories following such determination.

(f) To the extent that an investment share is determined pursuant to subparagraph (c) (iii) or (c) (v) or paragraph (h) of this Article, and to the extent necessitated by withdrawal of a Signatory, the investment shares of all other Signatories shall be adjusted in the proportion that their respective investment shares, held prior to this adjustment, bear to each other. On the withdrawal of a Signatory, investment shares of 0.05 per cent determined in accordance with the provisions of paragraph (h) of this Article shall not be increased.

(g) Notification of the results of each determination of investment shares, and of the effective date of such determination, shall be promptly furnished to all Signatories by INTELSAT.

(h) Notwithstanding any provision of this Article, no Signatory shall have an investment share of less than 0.05 per cent of the total investment shares.

ARTICLE 7

(Financial Adjustments Between Signatories)

(a) On entry into force of this Operating Agreement and thereafter at each determination of investment shares, financial adjustments shall be made between Signatories, through INTELSAT, on the basis of a valuation effected pursuant to paragraph (b) of this Article. The amounts of such financial adjustments shall be determined with respect to each Signatory by applying to such valuation:

- (i) on entry into force of this Operating Agreement, the difference, if any, between the final quota of each Signatory held pursuant to the Special Agreement and its initial investment share determined pursuant to Article 6 of this Operating Agreement;
- (ii) at each subsequent determination of investment shares, the difference, if any, between the new investment share of each Signatory and its investment share prior to such determination.

(b) The valuation referred to in paragraph (a) of this Article shall be effected as follows:

- (i) deduct from the original cost of all assets as recorded in INTELSAT accounts as of the date of adjustment, including any capitalized return or capitalized expenses, the sum of:
 - (A) the accumulated amortization as recorded in INTELSAT accounts as of the date of adjustment, and
 - (B) loans and other accounts payable by INTELSAT as of the date of adjustment;
- (ii) adjust the results obtained pursuant to subparagraph (i) of this paragraph by:
 - (A) adding or deducting, for the purpose of the financial adjustments on entry into force of this Operating Agreement, an amount representing any deficiency or excess, respectively, in the payment by INTELSAT of compensation for use of capital relative to the cumulative amount due pursuant to the Special Agreement, at the rate or rates of compensation for use of capital in effect during the periods in which the relevant rates were applicable, as established by the Interim Communications Satellite Committee pursuant to Article 9 of the Special Agreement.

For the purpose of assessing the amount representing any deficiency or excess in payment, compensation due shall be calculated on a monthly basis and relate to the net amount of the elements described in subparagraph (i) of this paragraph;

(B) adding or deducting, for the purpose of each subsequent financial adjustment a further amount representing any deficiency or excess, respectively, in the payment by INTELSAT of compensation for use of capital from the time of entry into force of this Operating Agreement to the effective date of valuation, relative to the cumulative amount due pursuant to this Operating Agreement, at the rate or rates of compensation for use of capital in effect during the periods in which the relevant rates were applicable, as established by the Board of Governors pursuant to Article 8 of this Operating Agreement. For the purpose of assessing the amount representing any deficiency or excess in payment, compensation due shall be calculated on a monthly basis and relate to the net amount of the elements described in subparagraph (i) of this paragraph.

(c) Payments due from and to Signatories pursuant to the provisions of this Article shall be effected by a date designated by the Board of Governors. Interest at a rate to be determined by the Board of Governors shall be added to any amount unpaid after that date, except that, with respect to payments due pursuant to subparagraph (a) (i) of this Article, interest shall be added from the date of entry into force of this Operating Agreement. The rate of interest referred to in this paragraph shall be equal to the rate of interest determined by the Board of Governors pursuant to paragraph (d) of Article 4 of this Operating Agreement.

ARTICLE 8

(Utilization Charges and Revenues)

(a) The Board of Governors shall specify the units of measurement of INTELSAT space segment utilization relative to various types of utilization and, guided by such general rules as may be established by the Meeting of Signatories pursuant to Article VIII of the Agreement, shall establish INTELSAT space segment utilization charges. Such charges shall have the objective of covering the operating, maintenance and administrative costs of INTELSAT, the provision of such operating funds as the Board of Governors may determine to be necessary, the amortization of investment made by Signatories in INTELSAT and compensation for use of the capital of Signatories.

(b) For the utilization of capacity available for the purposes of specialized telecommunications services, pursuant to paragraph (d) of Article III of the Agreement, the Board of Governors shall establish the charge to be paid for the utilization of such services. In doing so it shall comply with the provisions of the Agreement and this Operating Agreement and in particular paragraph (a) of this Article, and shall take into consideration the costs associated with the provision of the specialized telecommunications services as well as an adequate part of the general and administrative costs of INTELSAT. In the case of separate satellites or associated facilities financed by INTELSAT pursuant to paragraph (e) of Article V of the Agreement, the Board of Governors shall establish the charges to be paid for the utilization of such services.

In doing so, it shall comply with the provisions of the Agreement and this Operating Agreement and in particular paragraph (a) of this Article, so as to cover fully the costs directly resulting from the design, development, construction, and provision of such separate satellites and associated facilities as well as an adequate part of the general and administrative costs of INTELSAT.

(c) In determining the rate of compensation for use of the capital of Signatories, the Board of Governors shall include an allowance for the risks associated with investment in INTELSAT and, taking into account such allowance, shall fix the rate as close as possible to the cost of money in the world markets.

(d) The Board of Governors shall institute any appropriate sanctions in cases where payments of utilization charges shall have been in default for three months or longer.

(e) The revenues earned by INTELSAT shall be applied, to the extent that such revenues allow, in the following order of priority:

- (i) to meet operating, maintenance and administrative costs;
- (ii) to provide such operating funds as the Board of Governors may determine to be necessary;
- (iii) to pay to Signatories, in proportion to their respective investment shares, sums representing a repayment of capital in the amount of the provisions for amortization established by the Board of Governors and recorded in the INTELSAT accounts;

- (iv) to pay to a Signatory which has withdrawn from INTELSAT such sums as may be due to it pursuant to Article 21 of this Operating Agreement; and
- (v) to pay to Signatories, in proportion to their respective investment shares, the available balance towards compensation for use of capital.

(f) To the extent, if any, that the revenues earned by INTELSAT are insufficient to meet INTELSAT operating, maintenance and administrative costs, the Board of Governors may decide to meet the deficiency by using INTELSAT operating funds, by overdraft arrangements, by raising a loan, by requiring Signatories to make capital contributions in proportion to their respective investment shares or by any combination of such measures.

ARTICLE 9

(Transfer of Funds)

(a) Settlement of accounts between Signatories and INTELSAT in respect of financial transactions pursuant to Articles 4, 7 and 8 of this Operating Agreement shall be so arranged as to minimize both transfers of funds between Signatories and INTELSAT and the amount of funds held by INTELSAT over and above any operating funds determined by the Board of Governors to be necessary.

(b) All payments between Signatories and INTELSAT pursuant to this Operating Agreement shall be made in U.S. dollars or in currency freely convertible into U.S. dollars.

ARTICLE 10

(Overdrafts and Loans)

(a) For the purpose of meeting financial deficiencies, pending the receipt of adequate INTELSAT revenues or of capital contributions by Signatories pursuant to this Operating Agreement, INTELSAT may, with the approval of the Board of Governors, enter into overdraft arrangements.

(b) Under exceptional circumstances and for the purpose of financing any activity undertaken by INTELSAT, or of meeting any liability incurred by INTELSAT, pursuant to paragraph (a), (b) or (c) of Article III of the Agreement or to this Operating Agreement, INTELSAT may raise loans upon decision of the Board of Governors. The outstanding amounts of such loans shall be considered as contractual capital commitments for the purpose of Article 5 of this Operating Agreement. The Board of Governors shall, in accordance with subparagraph (a) (xiv) of Article X of the Agreement, report fully to the Meeting of Signatories with respect to the reasons for its decision to raise any loan and the terms and conditions under which such a loan was raised.

ARTICLE 11

(Excluded Costs)

The following shall not form part of the costs of INTELSAT:

- (i) taxes on income derived from INTELSAT of any of the Signatories;
- (ii) design and development expenditure on launchers and launching facilities except expenditure incurred for the adaptation of launchers and launching facilities in connection with the design, development, construction and establishment of the INTELSAT space segment; and
- (iii) the costs of representatives of Parties and Signatories incurred in attending meetings of the Assembly of Parties, of the Meeting of Signatories, of the Board of Governors or any other meetings of INTELSAT.

ARTICLE 12

(Audit)

The accounts of INTELSAT shall be audited annually by independent auditors appointed by the Board of Governors. Any Signatory shall have the right of inspection of INTELSAT accounts.

ARTICLE 13

(International Telecommunication Union)

In addition to observing the relevant regulations of the International Telecommunication Union, INTELSAT shall, in the design, development, construction and establishment of the INTELSAT space segment and in the procedures established for regulating the operation of the INTELSAT space segment and of the earth stations, give due consideration to the relevant recommendations and procedures of the International Telegraph and Telephone Consultative Committee, the International Radio Consultative Committee and the International Frequency Registration Board.

ARTICLE 14

(Earth Station Approval)

(a) Any application for approval of an earth station to utilize the INTELSAT space segment shall be submitted to INTELSAT by the Signatory designated by the Party in whose territory the earth station is or will be located or, with respect to earth stations located in a territory not under the jurisdiction of a Party, by a duly authorized telecommunications entity.

(b) Failure by the Meeting of Signatories to establish general rules, pursuant to subparagraph (b) (v) of Article VIII of the Agreement, or the Board of Governors to establish criteria and procedures, pursuant to subparagraph (a) (vi) of Article X of the Agreement, for approval of earth stations shall not preclude the Board of Governors from considering or acting upon any application for approval of an earth station to utilize the INTELSAT space segment.

(c) Each Signatory or telecommunications entity referred to in paragraph (a) of this Article shall, with respect to earth stations for which it has submitted an application, be responsible to INTELSAT for compliance of such stations with the rules and standards specified in the document of approval issued to it by INTELSAT, unless, in the case of a Signatory which has submitted an application, its designating Party assumes such responsibility with respect to all or some of the earth stations not owned or operated by such Signatory.

ARTICLE 15

(Allotment of Space Segment Capacity)

(a) Any application for allotment of INTELSAT space segment capacity shall be submitted to INTELSAT by a Signatory or, in the case of a territory not under the jurisdiction of a Party, by a duly authorized telecommunications entity.

(b) In accordance with the terms and conditions established by the Board of Governors pursuant to Article X of the Agreement, allotment of INTELSAT space segment capacity shall be made to a Signatory or, in the case of a territory not under the jurisdiction of a Party, to the duly authorized telecommunications entity making the application.

(c) Each Signatory or telecommunications entity to which an allotment has been made pursuant to paragraph (b) of this Article shall be responsible for compliance with all the terms and conditions established by INTELSAT with respect to such allotment, unless, in the case of a Signatory which has submitted an application, its designating Party assumes such responsibility for allotments made with respect to all or some of the earth stations not owned or operated by such Signatory.

ARTICLE 16

(Procurement)

(a) All contracts relating to the procurement of goods and services required by INTELSAT shall be awarded in accordance with Article XIII of the Agreement, Article 17 of this Operating Agreement and the procedures, regulations, terms and conditions established by the Board of Governors pursuant to the provisions of the Agreement and this Operating Agreement. The services to which this Article refers are those provided by juridical persons.

(b) The approval of the Board of Governors shall be required before:

- (i) the issuing of requests for proposals or invitations to tender for contracts which are expected to exceed 500,000 U.S. dollars in value;
- (ii) the awarding of any contract to a value exceeding 500,000 U.S. dollars.

(c) In any of the following circumstances, the Board of Governors may decide to procure goods and services otherwise than on the basis of responses to open international invitations to tender:

- (i) where the estimated value of the contract does not exceed 50,000 U.S. dollars or any such higher amount as the Meeting of Signatories may decide in the light of proposals by the Board of Governors;
- (ii) where procurement is required urgently to meet an emergency situation involving the operational viability of the INTELSAT space segment;
- (iii) where the requirement is of a predominantly administrative nature best suited to local procurement; and

- (iv) where there is only one source of supply to a specification which is necessary to meet the requirements of INTELSAT or where the sources of supply are so severely restricted in number that it would be neither feasible nor in the best interest of INTELSAT to incur the expenditure and time involved in open international tender, provided that where there is more than one source they will all have the opportunity to bid on an equal basis.

(d) The procedures, regulations, terms and conditions referred to in paragraph (a) of this Article shall provide for the supply of full and timely information to the Board of Governors. Upon request from any Governor, the Board of Governors shall be able to obtain, with respect to all contracts, any information necessary to enable that Governor to discharge his responsibilities as a Governor.

ARTICLE 17

(Inventions and Technical Information)

(a) INTELSAT, in connection with any work performed by it or on its behalf, shall acquire in inventions and technical information those rights, but no more than those rights, necessary in the common interests of INTELSAT and the Signatories in their capacity as such. In the case of work done under contract, any such rights obtained shall be on a non-exclusive basis.

(b) For the purposes of paragraph (a) of this Article, INTELSAT, taking into account its principles and objectives, the rights and obligations of the Parties and Signatories under the Agreement and this Operating Agreement and generally accepted industrial practices, shall, in connection with any work performed by it or on its behalf involving a significant element of study, research or development, ensure for itself:

- (i) the right without payment to have disclosed to it all inventions and technical information generated by work performed by it or on its behalf;
- (ii) the right to disclose and have disclosed to Signatories and others within the jurisdiction of any Party and to use and authorize and have authorized Signatories and such others to use such inventions and technical information:
 - (A) without payment, in connection with the INTELSAT space segment and any earth station operating in conjunction therewith, and
 - (B) for any other purpose, on fair and reasonable terms and conditions to be settled between Signatories or others within the jurisdiction of any Party and the owner or originator of such inventions and technical information or any other duly authorized entity or person having a property interest therein.

(c) In the case of work done under contract, the implementation of paragraph (b) of this Article shall be based on the retention by contractors of ownership of rights in inventions and technical information generated by them.

(d) INTELSAT shall also ensure for itself the right, on fair and reasonable terms and conditions, to disclose and have disclosed to Signatories and others within the jurisdiction of any Party, and to use and authorize and have authorized Signatories and such others to use, inventions and technical information directly utilized in the execution of work performed on its behalf but not included in paragraph (b) of this Article, to the

extent that the person who has performed such work is entitled to grant such right and to the extent that such disclosure and use is necessary for the effective exercise of rights obtained pursuant to paragraph (b) of this Article.

(e) The Board of Governors may, in individual cases, where exceptional circumstances warrant, approve a deviation from the policies prescribed in subparagraph (b) (ii) and paragraph (d) of this Article where in the course of negotiations it is demonstrated to the Board of Governors that failure to deviate would be detrimental to the interests of INTELSAT and, in the case of subparagraph (b) (ii), that adherence to these policies would be incompatible with prior contractual obligations entered into in good faith by a prospective contractor with a third party.

(f) The Board of Governors may also, in individual cases, where exceptional circumstances warrant, approve a deviation from the policy prescribed in paragraph (c) of this Article where all of the following conditions are met:

- (i) it is demonstrated to the Board of Governors that failure to deviate would be detrimental to the interests of INTELSAT,
- (ii) it is determined by the Board of Governors that INTELSAT should be able to ensure patent protection in any country and
- (iii) where, and to the extent that, the contractor is unable or unwilling to ensure such protection on a timely basis.

(g) In determining whether and in what form to approve any deviation pursuant to paragraphs (e) and (f) of this Article, the Board of Governors shall take into account the interests of INTELSAT and all Signatories and the estimated financial benefits to INTELSAT resulting from such deviation.

(h) With respect to inventions and technical information in which rights were acquired under the Interim Agreement and the Special Agreement, or are acquired under the Agreement and this Operating Agreement other than pursuant to paragraph (b) of this Article, INTELSAT, to the extent that it has the right to do so, shall upon request:

- (i) disclose or have disclosed such inventions and technical information to any Signatory, subject to reimbursement of any payment made by or required of INTELSAT in respect of the exercise of such right of disclosure;
- (ii) make available to any Signatory the right to disclose or have disclosed to others within the jurisdiction of any Party and to use and authorize or have authorized such others to use such inventions and technical information:
 - (A) without payment, in connection with the INTELSAT space segment or any earth station operating in conjunction therewith, and
 - (B) for any other purpose, on fair and reasonable terms and conditions to be settled between Signatories or others within the jurisdiction of any Party and INTELSAT or the owner or originator of such inventions and technical information or any other duly authorized entity or person having a property interest therein, and subject to reimbursement of any payment made by or required of INTELSAT in respect of the exercise of such rights.

(i) To the extent that INTELSAT acquires the right pursuant to subparagraph (b) (i) of this Article to have inventions and technical information disclosed to it, it shall keep each Signatory which so requests informed of the availability and general nature of such inventions and technical information. To the extent that INTELSAT acquires rights pursuant to the provisions of this Article to make inventions and technical information available to Signatories and others in the jurisdiction of Parties, it shall make such rights available upon request to any Signatory or its designee.

(j) The disclosure and use, and the terms and conditions of disclosure and use, of all inventions and technical information in which INTELSAT has acquired any rights shall be on a non-discriminatory basis with respect to all Signatories and their designees.

ARTICLE 18

(Liability)

(a) Neither INTELSAT nor any Signatory, in its capacity as such, nor any director, officer or employee of any of them nor any representative to any organ of INTELSAT acting in the performance of their functions and within the scope of their authority, shall be liable to, nor shall any claim be made against any of them by, any Signatory or INTELSAT for loss or damage sustained by reason of any unavailability, delay or faultiness of telecommunications services provided or to be provided pursuant to the Agreement or this Operating Agreement.

(b) If INTELSAT or any Signatory, in its capacity as such, is required, by reason of a binding decision rendered by a competent tribunal or as a result of a settlement agreed to or concurred in by the

Board of Governors, to pay any claim, including any costs and expenses associated therewith, which arises out of any activity conducted or authorized by INTELSAT pursuant to the Agreement or to this Operating Agreement, to the extent that the claim is not satisfied through indemnification, insurance or other financial arrangements, the Signatories shall, notwithstanding any ceiling established by or pursuant to Article 5 of this Operating Agreement, pay to INTELSAT the amount unsatisfied on such claim in proportion to their respective investment shares as of the date the payment by INTELSAT of such claim is due.

(c) If such a claim is asserted against a Signatory, that Signatory, as a condition of payment by INTELSAT of the claim pursuant to paragraph (b) of this Article, shall without delay provide INTELSAT with notice thereof, and shall afford INTELSAT the opportunity to advise and recommend on or to conduct the defense or other disposition of the claim and, to the extent permitted by the law of the jurisdiction in which the claim is brought, to become a party to the proceeding either with such Signatory or in substitution for it.

ARTICLE 19

(Buy-Out)

(a) Consonant with the provisions of Articles IX and XV of the Interim Agreement, the Board of Governors shall, as soon as practicable and not later than three months after entry into force of this Operating Agreement, determine, in accordance with paragraph (d) of this Article, the financial status in relation to INTELSAT of each signatory to the Special Agreement for which, in its capacity as a State, or for whose State the Agreement, on its entry into force, had neither entered into force

nor been applied provisionally. The Board of Governors shall notify each such signatory in writing of its financial status and the rate of interest thereon. This rate of interest shall be close to the cost of money in world markets.

(b) A signatory may accept the assessment of its financial status and the rate of interest as notified pursuant to paragraph (a) of this Article or as may otherwise have been agreed between the Board of Governors and this signatory. INTELSAT shall pay to such signatory, in U.S. dollars or in another currency freely convertible into U.S. dollars, within ninety days of such acceptance, or within such greater period as may be mutually agreed, the amount so accepted, together with interest thereon from the date of entry into force of this Operating Agreement to the date of payment.

(c) If there is a dispute between INTELSAT and a signatory as to the amount or the rate of interest, which cannot be settled by negotiation within the period of one year from the date of notification pursuant to paragraph (a) of this Article, the amount and rate of interest notified shall remain the standing offer by INTELSAT to settle the matter, and the corresponding funds shall be set aside at the disposal of such signatory. Provided that a mutually acceptable tribunal can be found, INTELSAT shall refer the matter to arbitration if the signatory so requests. Upon receipt of the decision of the tribunal, INTELSAT shall pay to the signatory the amount decided by the tribunal in U.S. dollars or in another currency freely convertible into U.S. dollars.

(d) For the purpose of paragraph (a) of this Article, the financial status shall be determined as follows:

- (i) multiply the final quota held by the signatory pursuant to the Special Agreement by the amount established from the valuation effected pursuant to paragraph (b) of Article 7 of this Operating Agreement as of the date of entry into force of this Operating Agreement; and
 - (ii) from the resulting product deduct any amounts due from that signatory as of the date of entry into force of this Operating Agreement.
- (e) No provision of this Article shall:
- (i) relieve a signatory described in paragraph (a) of this Article of its share of any obligations incurred by or on behalf of the signatories to the Special Agreement collectively as the result of acts or omissions in the implementation of the Interim Agreement and the Special Agreement prior to the date of entry into force of this Operating Agreement; or
 - (ii) deprive such a signatory of any rights acquired by it, in its capacity as such, which would otherwise continue after the termination of the Special Agreement and for which the signatory has not already been compensated pursuant to the provisions of this Article.

ARTICLE 20

(Settlement of Disputes)

(a) All legal disputes arising in connection with the rights and obligations under the Agreement or this Operating Agreement between Signatories with respect to each other, or between INTELSAT and a Signatory or Signatories, if not otherwise settled within a reasonable time, shall be submitted to arbitration in accordance with the provisions of Annex C to the Agreement.

(b) All such disputes arising between a Signatory and a State or telecommunications entity which has ceased to be a Signatory, or between INTELSAT and a State or telecommunications entity which has ceased to be a Signatory, and which arise after such State or telecommunications entity ceased to be a Signatory, if not otherwise settled within a reasonable time, shall be submitted to arbitration, and may be submitted to arbitration in accordance with the provisions of Annex C to the Agreement provided the disputants in any given dispute so agree. If a State or telecommunications entity ceases to be a Signatory after an arbitration in which it is a disputant has commenced, such arbitration shall be continued and concluded in accordance with the provisions of Annex C to the Agreement, or, as the case may be, with the other provisions under which the arbitration is being conducted.

(c) All legal disputes arising in connection with agreements or contracts that INTELSAT may conclude with any Signatory shall be subject to the provisions on settlement of disputes contained in such agreements or contracts. In the absence of such provisions, such disputes, if not otherwise settled within a reasonable time, shall be submitted to arbitration in accordance with the provisions of Annex C to the Agreement.

(d) If upon entry into force of this Operating Agreement, any arbitration is in progress pursuant to the Supplementary Agreement on Arbitration dated June 4, 1965, ^[1] the provisions of that Agreement shall remain in force with respect to such arbitration until its conclusion. If the Interim Communications Satellite Committee is a party to any such arbitration, INTELSAT shall replace it as a party.

ARTICLE 21

(Withdrawal)

(a) Within three months after the effective date of withdrawal of a Signatory from INTELSAT pursuant to Article XVI of the Agreement, the Board of Governors shall notify the Signatory of the evaluation by the Board of Governors of its financial status in relation to INTELSAT as of the effective date of its withdrawal and of the proposed terms of settlement pursuant to paragraph (c) of this Article.

(b) The notification pursuant to paragraph (a) of this Article shall include a statement of:

- (i) the amount payable by INTELSAT to the Signatory, calculated by multiplying the investment share held by the Signatory as of the effective date of its withdrawal by the amount established from a valuation effected pursuant to paragraph (b) of Article 7 of this Operating Agreement as of that date;
- (ii) any amounts to be paid by the Signatory to INTELSAT, pursuant to paragraph (g), (j) or (k) of Article XVI of the Agreement, representing its share of capital contributions for contractual commitments specifically

¹TIAS 5646 (reprint, Jan. 1967).

authorized prior to the receipt by the appropriate authority of notice of its decision to withdraw or, as the case may be, prior to the effective date of its withdrawal, together with the proposed schedule for the payments to meet the said contractual commitments; and (iii) any amounts due from the Signatory to INTELSAT as of the effective date of its withdrawal.

(c) The amounts referred to in subparagraphs (b) (i) and (b) (ii) of this Article shall be repaid by INTELSAT to the Signatory over a period of time consistent with the period over which other Signatories will be repaid their capital contributions, or over such lesser period as the Board of Governors may consider appropriate. The Board of Governors shall determine the rate of interest to be paid to or by the Signatory in respect of any amounts which may, from time to time, be outstanding for settlement.

(d) In its evaluation pursuant to subparagraph (b) (ii) of this Article, the Board of Governors may decide to relieve the Signatory in whole or in part of its responsibility for contributing its share of the capital contributions necessary to meet both contractual commitments specifically authorized and liabilities arising from acts or omissions prior to the receipt of notice of withdrawal or, as the case may be, prior to the effective date of withdrawal of the Signatory pursuant to Article XVI of the Agreement.

(e) Except as may be decided by the Board of Governors pursuant to paragraph (d) of this Article, no provision of this Article shall:

- (i) relieve a Signatory referred to in paragraph (a) of this Article of its share of any non-contractual

obligations of INTELSAT arising from acts or omissions in the implementation of the Agreement and the Operating Agreement prior to the receipt of notice of its decision to withdraw or, as the case may be, prior to the effective date of its withdrawal; or

- (ii) deprive such a Signatory of any rights acquired by it, in its capacity as such, which would otherwise continue after the effective date of its withdrawal, and for which the Signatory has not already been compensated pursuant to the provisions of this Article.

ARTICLE 22

(Amendments)

(a) Any Signatory, the Assembly of Parties or the Board of Governors may propose amendments to this Operating Agreement. Proposed amendments shall be submitted to the executive organ, which shall distribute them promptly to all Parties and Signatories.

(b) The Meeting of Signatories shall consider each proposed amendment at its first ordinary meeting following its distribution by the executive organ, or at an earlier extraordinary meeting convened in accordance with the provisions of Article VIII of the Agreement, provided that the proposed amendment has been distributed by the executive organ at least ninety days before the opening date of the meeting. The Meeting of Signatories shall consider any views and recommendations which it receives from the Assembly of Parties or the Board of Governors with respect to a proposed amendment.

(c) The Meeting of Signatories shall take decisions on each proposed amendment in accordance with the provisions relating to quorum and voting contained in Article VIII of the Agreement. It may modify any proposed amendment, distributed in accordance with paragraph (b) of this Article, and may also take decisions on any amendment not so distributed but directly consequential to a proposed or modified amendment.

(d) An amendment which has been approved by the Meeting of Signatories shall enter into force in accordance with paragraph (e) of this Article after the Depositary has received notice of approval of the amendment from either:

- (i) two-thirds of the Signatories which were Signatories as of the date upon which the amendment was approved by the Meeting of Signatories, provided that such two-thirds include Signatories which then held at least two-thirds of the total investment shares; or
- (ii) a number of Signatories equal to or exceeding eighty-five per cent of the total number of Signatories which were Signatories as of the date upon which the amendment was approved by the Meeting of Signatories, regardless of the amount of investment shares which such Signatories then held.

Notification of the approval of an amendment by a Signatory shall be transmitted to the Depositary by the Party concerned, and such a notification shall signify the acceptance by the Party of such amendment.

(e) The Depositary shall notify all the Signatories as soon as it has received the approvals of the amendment required by paragraph (d) of this Article for the entry into force of an amendment. Ninety days after the

date of issue of this notification, the amendment shall enter into force for all Signatories, including those that have not yet approved it and have not withdrawn from INTELSAT.

(f) Notwithstanding the provisions of paragraphs (d) and (e) of this Article, an amendment shall not enter into force later than eighteen months after the date it has been approved by the Meeting of Signatories.

ARTICLE 23

(Entry into Force)

(a) This Operating Agreement shall enter into force for a Signatory on the date on which the Agreement enters into force, in accordance with paragraphs (a) and (d) or paragraphs (b) and (d) of Article XX of the Agreement, for the Party concerned.

(b) This Operating Agreement shall be applied provisionally for a Signatory on the date on which the Agreement is applied provisionally, in accordance with paragraphs (c) and (d) of Article XX of the Agreement, for the Party concerned.

(c) This Operating Agreement shall continue in force for as long as the Agreement is in force.

ARTICLE 24

(Depositary)

(a) The Government of the United States of America shall be the Depositary for this Operating Agreement, the texts of which in English, French and Spanish are equally authentic. This Operating Agreement shall be deposited in the archives of the Depositary, with which shall also be deposited notifications of approval of amendments, of substitution of a Signatory pursuant to paragraph (f) of Article XVI of the Agreement, and of withdrawals from INTELSAT.

(b) The Depositary shall transmit certified copies of the texts of this Operating Agreement to all Governments and all designated telecommunications entities which have signed it, and to the International Telecommunication Union, and shall notify those Governments, designated telecommunications entities, and the International Telecommunication Union, of signatures to this Operating Agreement, of commencement of the sixty-day period referred to in paragraph (a) of Article XX of the Agreement, of the entry into force of this Operating Agreement, of notifications of approval of amendments and of the entry into force of amendments to this Operating Agreement. Notice of the commencement of the sixty-day period shall be issued on the first day of that period.

(c) Upon entry into force of this Operating Agreement, the Depositary shall register it with the Secretariat of the United Nations in accordance with Article 102 of the Charter of the United Nations.

IN WITNESS WHEREOF, the undersigned duly authorized thereto have signed this Operating Agreement.

DONE at Washington, on the 20th day of August, one thousand nine hundred and seventy-one.

ANNEX

TRANSITION PROVISIONS

1) Obligations of Signatories

Each Signatory to this Operating Agreement which was, or whose designating Party was, a party to the Interim Agreement shall pay, or shall be entitled to receive, the net amount of any sums due pursuant to the Special Agreement as of the date of entry into force of the Agreement, from or to such party, in its capacity as a signatory to the Special Agreement, or from or to its designated signatory to the Special Agreement.

2) Establishment of the Board of Governors

(a) On the date of commencement of the sixty-day period referred to in paragraph (a) of Article XX of the Agreement, and thereafter at weekly intervals, the Communications Satellite Corporation shall notify all signatories to the Special Agreement and States or telecommunications entities designated by States for whom this Operating Agreement will come into force, or will be applied provisionally, on the date of entry into force of the Agreement, of the estimated initial investment share of each such State or telecommunications entity pursuant to the provisions of this Operating Agreement.

(b) During the said sixty-day period, the Communications Satellite Corporation shall make the necessary administrative preparations for the convening of the first meeting of the Board of Governors.

(c) Within three days after the date of entry into force of the Agreement, the Communications Satellite Corporation, acting pursuant to paragraph 2 of Annex D to the Agreement, shall:

- (i) inform all Signatories for whom this Operating Agreement has come into force or has been applied provisionally of their initial investment shares determined pursuant to Article 6 of this Operating Agreement; and
- (ii) inform all such Signatories of the arrangements made for the first meeting of the Board of Governors, which shall be convened not more than thirty days after the date of entry into force of the Agreement.

3) Settlement of Disputes

Any legal dispute which may arise between INTELSAT and the Communications Satellite Corporation in connection with the rendering of services by the Corporation to INTELSAT, between the date of entry into force of this Operating Agreement and the effective date of the contract arranged pursuant to subparagraph (a) (ii) of Article XII of the Agreement, if not otherwise settled within a reasonable time, shall be submitted to arbitration in accordance with the provisions of Annex C to the Agreement.

* * *

INTELSAT: SIGNATORIES TO THE OPERATING AGREEMENT, DECEMBER 1976

Country	Signatory	Address to which correspondence should be sent
Afghanistan (English)-----	Ministry of Communications of the Royal Government of Afghanistan.	The Minister of Communications, Kabul, Afghanistan.
Algeria (French)-----	Government of the Democratic and Popular Republic of Algeria.	Monsieur le Ministre des Postes et Telecommunications, 4, Boulevard Salah; Bouakouir; Sept Merveilles, Algiers, Algeria.
Argentina (Spanish)-----	Empresa Nacional de Telecomunicaciones de la Republica Argentina (Entel).	Administrador General, Empresa Nacional de Telecomunicaciones (Entel), San Martin 320, 1er. Piso, Buenos Aires, Argentina. cc: Director de Servicios Internacionales, Empresa Nacional de Telecomunicaciones (Entel), San Martin 320, 1er. Piso, Buenos Aires, Argentina.
Australia (English)-----	Overseas Telecommunications Commission (Australia).	General Manager, Overseas Telecommunications Commission (Australia), Box 7000, G.P.O. Sydney, N.S.W., 2001, Australia.
Austria (English)-----	Government of Austria-----	Generaldirektion fuer die Post-und Telegraphenverwaltung, c/o Dipl. Ing. Friedrich Zimmermann Postgasse 8, A-1011, Vienna, Austria. cc: His Excellency, The Ambassador of Austria, 2343 Massachusetts Avenue, N.W., Washington, D.C. 20008.
Bangladesh (English)-----	Ministry of Posts, Telephones and Telegraphs of the Government of the People's Republic of Bangladesh.	His Excellency, The Ambassador of the People's Republic of Bangladesh, 2123 California Street, N.W., Washington, D.C. 20008.
Barbados (English)-----	Cable & Wireless (West Indies) Ltd.	Head of International Relations Bureau, Cable & Wireless Limited, Mercury House, Theobalds Road, London WC1X 8RX, England. cc: General Manager, Cable & Wireless (West Indies) Ltd., P.O. Box 32, Bridgetown, Barbados.
Belgium (French)-----	Regie des Telegraphes et des Telephones.	Administrateur General Regie des Telegraphes et des Telephones 42, Rue des Palais B-1030, Brussels, Belgium.
Bolivia (Spanish)-----	Empresa Nacional de Telecomunicaciones (Entel).	Gerente General Empresa Nacional de telecomunicaciones (Entel), Edificio Petrolero 70 Piso, Casilla Postal 4450, La Paz, Bolivia.
Brazil (English)-----	Empresa Brasileira de Telecomunicações (Embratel).	Presidente Empresa Brasileira de Telecomunicações (Embratel), Av. Presidente Vargas 1012, 20000 Rio de Janeiro, R.J., Brazil.
Cameroon (English and French)---	Government of the United Republic of Cameroon.	Directeur des Telecommunications, Ministère des Postes et Telecommunications, B.P. 1042, Yaoundé, Cameroon. cc: President Director General, Société des Telecommunications Internationales (Intelcam), B.P. 1571, Yaoundé, Cameroon.
Canada (English and French)-----	Teleglobe Canada-----	Director, Intelsat Relations, Teleglobe Canada, 680 Sherbrooke Street West, Montreal, Quebec, Canada, H3A 2S4.
Central African Republic (French)---	Government of the Central African Republic.	His Excellency, The Ambassador of the Central African Republic, 1618 22nd Street, N.W., Washington, D.C. 20008.
Chile (Spanish)-----	Empresa Nacional de Telecomunicaciones, S.A. (Entel).	Gerente General, Empresa Nacional de Telecomunicaciones, S.A. (Entel-Chile), Moneda 812, 40 Piso, Casilla Postal 4254, Santiago Chile.
Colombia (Spanish)-----	Empresa Nacional de Telecomunicaciones de Colombia (Telecom).	Dr. Alfredo Rey Cardoba, Telecom, Calle 23, No. 13-49, Piso 13, Bogotá, Colombia. cc: Secretario General, Ministerio de Comunicaciones, Edificio Murillo Toro, Carrera 7a. y 8a, Calles 12 y 13, Bogotá, Colombia.
Costa Rica (Spanish)-----	Instituto Costarricense de Electricidad.	Jefe Dirección de Operaciones-Telecomunicaciones, Instituto Costarricense de Electricidad, Apartado Postal 10032, San José, Costa Rica.
Cyprus (English)-----	Cyprus Telecommunications Authority.	General Manager, Cyprus Telecommunications Authority, P.O. Box 4929, Nicosia, Cyprus.
Denmark (English)-----	Generaldirektoratet for Post-og Telegrafvaesnet.	General Directorate of Posts and Telegraphs, Telecommunications Services, Farvergade 17, DK 1007 Copenhagen K, Denmark.
Dominican Republic (Spanish)-----	Compañía Dominicana de Teléfonos, C. por A.	Presidente y Administrador General, Compañía Dominicana de Teléfonos, C. por A., Apartado 1377, Santo Domingo, D.N., Dominican Republic.
Ecuador (Spanish)-----	Instituto Ecuatoriano de Telecomunicaciones (Iotel).	Gerente General, Instituto Ecuatoriano de Telecomunicaciones (Iotel), Casilla Postal 3066, Quito, Ecuador.
Egypt, Arab Republic of (English)---	Government of the Arab Republic of Egypt.	Chairman of the Board of Directors, Telecommunications Organization, Ramses Street, Cairo, Arab Republic of Egypt.

INTELSAT: SIGNATORIES TO THE OPERATING AGREEMENT, DECEMBER 1976—Continued

Country	Signatory	Address to which correspondence should be sent
Ethiopia (English).....	Imperial Board of Telecommunications.	The General Manager, Imperial Board of Telecommunications, P.O. Box 1047, Addis Ababa, Ethiopia.
Finland (English).....	Administration of Posts and Telegraphs of Finland.	Foreign Division, General Direction of Posts and Telegraphs, P.B. 528, SF-00101 Helsinki 10, Finland.
France (French).....	Government of France.....	Monsieur le Directeur des affaires commerciales, financières et internationales, Direction Générale des Télécommunications, 20, Avenue de Ségur, 75700 Paris, France. cc: Monsieur le Conseiller Scientifique près l'Ambassade de France, French Scientific Mission, 2011 Eye Street, N.W., Washington, D.C. 20006.
Gabon (French).....	Société des Télécommunications Internationales Gabonaises (TIG).	Directeurs, Télécommunications Internationales Gabonaises (TIG), B.P. 2261, Libreville, Republic of Gabon.
German, Federal Republic of (English).	Federal Ministry for Post and Telecommunication.	Ministerialrat B.A. Seidel, Ministry of P.T.T., 81 Adenauerallee, 53 Bonn, Germany.
Ghana (English).....	Ministry of Transport and Communications.	Director General, Posts and Telecommunication Corp., Accra North Post Office, Accra, Ghana.
Greece (English).....	Hellenic Telecommunications Organization (OTE) S.A.	Director of Planning Department, Hellenic Telecommunications Organization (OTE) S.A. 15, Stadiou Street, Athens 124, Greece
Guatemala (Spanish).....	Government of Guatemala.....	Subgerente, Empresa Guatemalteca de Telecomunicaciones (Guatel), 7a Avenida 12-39, Zona 1, Apartado Postal 811, Guatemala, Guatemala. cc: Ministro de Relaciones Exteriores, c/o Dirección de Organismos Internacionales, 5a Calle 5-61, Zona 1, Guatemala, Guatemala.
Haiti (French).....	Telecommunications d'Haiti, S.A.---	President and General Manager, Télécommunications d'Haiti, S.A., Attention: H. A. Theophile, P.O. Box 814, Port-au-Prince, Haiti.
Iceland (English).....	Government of Iceland.....	Director of Technical Department, General Directorate of Posts and Telecommunications, P.O. Box 270, Reykjavik, Iceland. cc: His Excellency, The Ambassador of Iceland, 2022 Connecticut Avenue, N.W., Washington D.C. 20008.
India (English).....	Overseas Communications Service, Ministry of Communications, Government of India.	Director General, Overseas Communications Service (OCS), Videsh Sanchar Bhavan, Mahatma Gandhi Road, Fort Bombay, 400023 India.
Indonesia (English).....	Government of the Republic of Indonesia.	Director General of Posts and Telecommunications, Jalan Kebon Sirih 37, Jakarta, Indonesia. cc: Indonesian Embassy, Economic Division, 2020 Massachusetts Avenue, N.W., Washington, D.C. 20036. cc: President Director, Perum Telekomunikasi, Jalan Asia Afrika, Bandung, Indonesia. cc: Director General for Economic Affairs, Department of Foreign Affairs, Jakarta Indonesia.
Iran (English).....	Telecommunication Company of Iran.	Mr. J. Edrissi, Office of Intelsat Affairs, Telecommunication Company of Iran, Bisim Pahlavi, Koorosh Kabir Avenue, Tehran, Iran.
Iraq (English).....	Government of the Republic of Iraq--	First Secretary, Iraqi Interests Section, Embassy of India, 1801 P Street, N.W., Washington, D.C. 20036.
Ireland (English).....	Department of Posts and Telegraphs.	Secretary, Department of Posts and Telegraphs, General Post Office, Dublin, 1, Ireland.
Israel (English).....	Government of the State of Israel...	Director General, Ministry of Communications, 23 Jaffa Street, Jerusalem 91999, Israel. cc: Mr. Chaim Even-Zohar, Assistant to the Economic Counselor, Embassy of Israel, 1621 22nd Street, N.W., Washington, D.C. 20008.
Italy (English).....	Società Telespazio.....	President, Società Telespazio, 42-43 Corso d'Italia, 00198 Rome, Italy.
Ivory Coast (French).....	Government of the Republic of Ivory Coast.	His Excellency, The Ambassador of the Republic of the Ivory Coast, 2424 Massachusetts Avenue, N.W., Washington, D.C. 20008. cc: Directeur General, Intelci, B.P. 1838, Abidjan, Ivory Coast.

INTELSAT: SIGNATORIES TO THE OPERATING AGREEMENT, DECEMBER 1976—Continued

Country	Signatory	Address to which correspondence should be sent
Jamaica (English).....	Jamaica International Telecommunications, Ltd. (Jamintel).	General Manager, Jamaica International Telecommunications, Ltd. (Jamintel), P.O. Box 138, Kingston, Jamaica.
Japan (English).....	Kokusai Denshin Denwa Company, Ltd.	President, Kokusai Denshin Denwa Company, Ltd., Kokusai Tsushin Center, P.O. Box No. 1, 3-2, Nishi-Shinjuku 2-chome, Shinjuku-ku, Tokyo 160, Japan. cc: Japan Office (Intelsat).
Jordan (English).....	Government of the Hashemite Kingdom of Jordan.	His Excellency, The Ambassador of the Hashemite Kingdom of Jordan, 2319 Wyoming Avenue, N.W., Washington, D.C. 20008. cc: His Excellency, The Minister of Communications, Ministry of Communications, Amman, Jordan. cc: Director General, Jordan Telecommunications Corporation, P.O. Box 1689 Amman, Jordan.
Kenya (English).....	East African External Telecommunications Company, Ltd.	General Manager, East African External Telecommunications Company, Ltd., P.O. Box 30488, Nairobi, Kenya.
Korea (English).....	Government of the Republic of Korea.	Director-General, Telecommunications Bureau, Ministry of Communications, #60 1-ka Taepyeong-ro, Choong-ku, Seoul, Korea. cc: Counselor, Economic Affairs, Embassy of Korea, 2320 Massachusetts Avenue, N.W., Washington, D.C. 20008.
Kuwait (English).....	The Ministry of Communications, The State of Kuwait.	Under-Secretary, Ministry of Communications of the State of Kuwait, Kuwait, Kuwait.
Lebanon (French).....	Government of Lebanon.....	Directeur des Services Techniques, Ministère des P.T.T., Bir Hassan, Beirut, Lebanon.
Libyan Arab Republic (English).....	Government of the Libyan Arab Republic.	Chargé d'Affaires ad interim, Embassy of the Libyan Arab Republic, 2344 Massachusetts Avenue, N.W., Washington, D.C. 20008.
Liechtenstein (English).....	Government of the Principality of Liechtenstein.	Regierungschef, Regierung des Fürstentums Liechtenstein, Ressortchef "Verkehr," FL-9490 Vaduz, Liechtenstein.
Luxembourg (French).....	Government of Luxembourg.....	Administration P et T, Avenue Monterey, 8A, Luxembourg, Luxembourg.
Malagasy Republic (French).....	Société des Telecommunications Internationales de la République Malgache (Stimad).	Directeur, Société des Telecommunications Internationales de la République Malgache, (Stimad), B.P. 763, Alarobia, Tananarive, Madagascar, Malagasy Republic.
Malaysia (English).....	Telecommunications Department, Malaysia.	Director General, Telecommunications Headquarters, Jalan Bukit Nanas, Kuala Lumpur, Malaysia.
Mali (French).....	Télécommunications Internationales du Mali (TIM).	H.F., The Ambassador of the Republic of Mali, 2130 R Street, N.W., Washington, D.C. 20008.
Mauritania (French).....	Government of the Islamic Republic of Mauritania.	Directeur, Office des Postes et Télécommunications, Nouakchott, Mauritania.
Mexico (Spanish).....	Government of Mexico.....	Director General de Telecomunicaciones, Secretaría de Comunicaciones y Transportes, Niño Penedo y Cumbres de Acultzingo, Mexico 12, D.F., Mexico. cc: His Excellency, The Ambassador of Mexico, 2440 Massachusetts Avenue, N.W., Washington, D.C. 20008.
Monaco (French).....	Government of the Principality of Monaco.	Ministre Plénipotentiaire, Délégué Permanent auprès des Organismes Internationaux, Villa Girasole, 16, Bd. de Suisse, Monte Carlo, Principality of Monaco.
Morocco (French).....	Government of Morocco.....	His Excellency, The Ambassador of Morocco, 1601 21st Street, N.W. Washington, D.C. 20009. cc: Ministère des Postes et Télécommunications, Rabat, Morocco.
Netherlands (English).....	Government of the Kingdom of the Netherlands.	Director General Staatsbedrijf der PTT, Attn: Mr. F. R. Neubauer Stichthage, Koningin Julianaplein 15, The Hague, The Netherlands.
New Zealand (English).....	Postmaster-General New Zealand.....	Director of Overseas Telecommunications, Post Office Headquarters, 7-27 Waterloo Quay, Wellington 1, New Zealand. Mr. D. M. Stracy, Embassy of New Zealand, 19 Observatory Circle, N.W., Washington, D.C. 20008.
Nicaragua (Spanish).....	Compañía Nicaragüense de Telecomunicaciones por Satélite.	Gerente General, Nicatelsat, Apartado 4567 Managua, Nicaragua. cc: Mr. Paul M. Winchester, Nicatelsat, c/o Comsat General Corporation, 950 L'Enfant Plaza, S.W., Washington, D.C. 20024.

Country	Signatory	Address to which correspondence should be sent
Nigeria (English).....	Nigerian External Telecommunications Limited.	General Manager, Nigerian External Telecommunications, Ltd., P.O. Box 173, 15 Marina, Lagos, Nigeria.
Norway (English).....	Norwegian Telecommunications Administration (Teledirektoratet).	Head of International Relations Office, Norwegian Telecommunications Administration, P.O. B. 6701, St. Olavs Plass, Oslo 1, Norway.
Oman (English).....	Sultanate of Oman.....	His Excellency, The Minister of Communications, P.O. Box 684, Muscat, Sultanate of Oman.
Pakistan (English).....	Government of the Islamic Republic of Pakistan.	Divisional Engineer (Documentation), Pakistan Telegraph and Telephone Directorate General, 8th Avenue, Islamabad, Pakistan. cc: His Excellency, The Ambassador of Pakistan, 2315 Massachusetts Avenue, N.W., Washington, D.C. 20008.
Panama (Spanish).....	Intercontinental de Comunicaciones por Satélite, S.A. (Intercomsa).	Gerente General, Intercontinental de Comunicaciones por Satélite, S.A., Apartado 526, Panama 9A, Republic of Panama.
Peru (Spanish).....	Empresa Nacional de Telecomunicaciones del Perú (Entel-Peru).	Gerente General, Empresa Nacional de Telecomunicaciones del Perú (Entel-Peru) Apartado 2600, Lima, Peru.
Philippines (English).....	Philippine Communications Satellite Corporation (Philcomsat).	Chairman of the Board, Philippine Communications Satellite Corporation, 10th Floor, Vicente Madrigal Bldg., Ayala Avenue, Makati, Rizal, The Philippines. President, Philippine Overseas Telecommunications Corporation, 10th Floor, Vicente Madrigal Bldg., Ayala Avenue, Makati Rizal, The Philippines.
Portugal (English).....	Companhia Portuguesa Rádio Marconi.	Managing Director, Companhia Portuguesa Rádio Marconi, Praça Marques de Pombal, 15, Lisbon 1, Portugal.
Qatar (English).....	Government of the State of Qatar.....	H.E. Abdullah Saleh Al-Mana, Ambassador E. & P., Embassy of the State of Qatar, 600 New Hampshire Avenue, N.W., Suite 1180, Washington, D.C. 20037.
Saudi Arabia (English).....	Government of Saudi Arabia.....	Deputy Minister, P.T.T., Ministry of Communications, Riyadh, Saudi Arabia.
Senegal (French).....	Government of the Republic of Senegal.	Chef Division Amérique, Ministère des Affaires Etrangères, Place de l'Indépendance, Dakar, Senegal. cc: His Excellency, The Ambassador of the Republic of Senegal, 2112 Wyoming Avenue, N.W., Washington, D.C. 20008.
Singapore (English).....	Telecommunication Authority of Singapore.	General Manager, Attn.: Manager, Regulatory Affairs, Telecommunication Authority of Singapore, Telecommunication Headquarters, 15/33 Hill Street, Singapore 6, Republic of Singapore.
South Africa (English).....	Department of Posts and Telecommunications of the Republic of South Africa.	Assistant Chief Engineer, Radio, Department of Posts and Telecommunications, Private Bag X74, Pretoria 0001, Republic of South Africa.
Spain (Spanish).....	Compañía Telefónica Nacional de España.	Director General, Compañía Telefónica Nacional de España, Avenida de José Antonio, 28, Madrid, Spain. cc: Subdirector General, Compañía Telefónica Nacional de España, Plaza de España, 3 Madrid 13, Spain. cc: Director Internacional, Compañía Telefónica Nacional de España; Plaza de España, 3, Madrid 13, Spain. cc: D. José Martínez Villarejo, Departamento Internacional, Compañía Telefónica Nacional de España, Plaza de España, 3, Madrid 13, Spain.
Sri Lanka, Republic of (English).....	Government of Sri Lanka.....	The Manager, Overseas Telecommunications Service, P.O. Box 235, Colombo 1, Sri Lanka
Sudan (English).....	Government of the Democratic Republic of the Sudan.	Director General, Department of Telecommunication, Khartoum, Democratic Republic of the Sudan.
Sweden (English).....	Swedish Telecommunications Administration.	Head of International Relations Division (Eu), Central Administration of Swedish Telecommunications, S-123 86 Farsta, Sweden.
Switzerland (English (2)).....	Direction Générale de l'Entreprise des Postes, Téléphones et Télégraphes Suisses.	Director General PTT, Telecommunications Department, Viktoriastrasse 21, CH-3000 Bern 33, Switzerland.
Syrian Arab Republic (English).....	Government of the Syrian Arab Republic.	The Director General, Establishment of Post and Telecommunications, Saasallah Al Jabri Street, Damascus, Syria.

INTELSAT: SIGNATORIES TO THE OPERATING AGREEMENT, DECEMBER 1976—Continued

Country	Signatory	Address to which correspondence should be sent
Tanzania (English).....	East African External Telecommunications Company Limited.	(See Kenya.)
Thailand (English).....	Government of Thailand.....	His Excellency, The Ambassador of Thailand, 2300 Kalorama Road, NW., Washington D.C. 20008. cc: Director General, Post and Telegraph Department, New Road, Bangkok, Thailand. cc: Mr. V. Bechsonggram, Chief of Customer Relations, Commercial Division, Post and Telegraph Department, Bangkok 5, Thailand.
Trinidad and Tobago (English)....	Trinidad & Tobago External Telecommunications Company, Ltd. (Textel).	Chairman, Trinidad & Tobago External Telecommunications Company, Ltd. (Textel), P.O. Box 3, Port of Spain, Trinidad, West Indies.
Tunisia (French).....	Administration for Post, Telegraph and Telephone of Tunisia.	Monsieur le Ministre des Transports et Communications, 3bis rue d'Angleterre, Tunis, Tunisia.
Turkey (English).....	Government of Turkey.....	His Excellency, The Ambassador of the Republic of Turkey, 1606 23rd Street, N.W., Washington, D.C. 20008. cc: His Excellency, The Minister of Communications, Ulaştırma Bakanlığı, Ankara, Turkey. cc: The Director General, General Directorate of P.T.T., PTT Genel Müdürlüğü, Teknik İşler Dairesi, Ankara, Turkey.
Uganda (English).....	East African External Telecommunications Company Limited.	(See Kenya.)
United Arab Emirates (English (2) and French (2)).	Ministry of Communications of the Government of the United Arab Emirates.	Ministry of Communications, P.O. Box 900, Abu Dhabi, United Arab Emirates.
United Kingdom (English).....	Post Office.....	Senior Director, Post Office External Telecommunications Executive, Alder House, 1 Aldersgate Street, London EC1A 1AL, England.
United States (English).....	Communications Satellite Corporation.	Assistant Vice-President and Deputy Director, U.S. Intelsat Division, Communications Satellite Corporation, 950 L'Enfant Plaza, S.W., Washington, D.C. 20024.
Vatican City State (English).....	Government of the Vatican City State.	Secretary of State of His Holiness Vatican City, Vatican.
Venezuela (Spanish).....	Venezuelan Telephone Company (Compañía Anónima Nacional Teléfonos de Venezuela).	Gerente Internacional, Compañía Anónima Nacional Teléfonos de Venezuela (Cantv), Apartado Postal 1226, Caracas, Venezuela.
Vietnam (English and French)....	Government of the Republic of Vietnam.	Temporary address: Mission Permanente du G.R.P., 44 Avenue du Madrid, Neuilly, Paris 92200, France.
Yemen Arab Republic (English)....	Government of the Yemen Arab Republic.	First Secretary, Embassy of the Yemen Arab Republic, Suite 860, 600 New Hampshire Avenue, N.W., Washington, D.C. 20037. cc: Foreign Ministry, International Department, Sanaa, Yemen Arab Republic.
Yugoslavia (English).....	Community of the Yugoslav Posts, Telegraphs and Telephones.	Head, Bureau for International PTT Relations, Community of Yugoslav Posts, Telegraphs and Telephones, Palmoticeva 2, 11001 Belgrade, Yugoslavia.
Zaire, Republic of (French).....	Office National des Postes et Télécommunications de Zaire (O.N.P.-T.Z.).	Commissaire d'Etat, Postes et Télécommunications, B.P. 800, Kinshasa I, Republic of Zaire.
Zambia (English).....	Government of the Republic of Zambia.	The Postmaster General, General Post Office, P.O. Box 1630, Ndola, Zambia.
Management services contractor: Information copy (English).....		Mr. Len Dooley, Director of International Management Services, Communications Satellite Corporation, 950 L'Enfant Plaza, S.W., Washington, D.C. 20024.

CONVENTION
FOR THE ESTABLISHMENT
OF A EUROPEAN SPACE AGENCY

The States parties to this Convention,

CONSIDERING that the magnitude of the human, technical and financial resources required for activities in the space field is such that these resources lie beyond the means of any single European country,

CONSIDERING the Resolution adopted by the European Space Conference on 20 December 1972 and confirmed by the European Space Conference on 31 July 1973, which decided that a new organisation, called the "European Space Agency", would be formed out of the European Space Research Organisation and the European Organisation for the Development and Construction of Space Vehicle Launchers, and that the aim would be to integrate the European national space programmes into a European space programme as far and as fast as reasonably possible,

DESIRING to pursue and to strengthen European cooperation, for exclusively peaceful purposes, in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space applications systems,

DESIRING, in order to achieve these aims, to establish a single European space organisation to increase the efficiency of the total of European space efforts by making better use of the resources at present devoted to space and to define a European space programme for exclusively peaceful purposes,

HAVE AGREED as follows:

ARTICLE I

ESTABLISHMENT OF THE AGENCY

1. A European organisation, called the "European Space Agency", hereinafter referred to as "the Agency", is hereby established.
2. The members of the Agency, hereinafter referred to as "Member States", shall be the States which are parties to this Convention in accordance with Articles XX and XXII.
3. All Member States shall participate in the mandatory activities referred to in Article V.1(a) and shall contribute to the fixed common costs of the Agency, referred to in Annex II.
4. The Headquarters of the Agency shall be situated in the Paris area.

ARTICLE II

PURPOSE

The purpose of the Agency shall be to provide for and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space applications systems,

- (a) by elaborating and implementing a long-term European space policy, by recommending space objectives to the Member States, and by concerting the policies of the Member States with respect to other national and international organisations and institutions;
- (b) by elaborating and implementing activities and programmes in the space field;
- (c) by coordinating the European space programme and national programmes, and by integrating the latter progressively and as completely as possible into the European space programme, in particular as regards the development of applications satellites;
- (d) by elaborating and implementing the industrial policy appropriate to its programme and by recommending a coherent industrial policy to the Member States.

ARTICLE III

INFORMATION AND DATA

- 1. Member States and the Agency shall facilitate the exchange of scientific and technical information pertaining to the fields of space research and technology and their space applications, provided that a Member State shall not be required to communicate any information obtained outside the Agency if it considers that such communication would be inconsistent with the interests of its own security or its own agreements with third parties, or the conditions under which such information has been obtained.

2. In carrying out its activities under Article V, the Agency shall ensure that any scientific results shall be published or otherwise made widely available after prior use by the scientists responsible for the experiments. The resulting reduced data shall be the property of the Agency.
3. When placing contracts or entering into agreements, the Agency shall, with regard to the resulting inventions and technical data, secure such rights as may be appropriate for the protection of its interests, of those of the Member States participating in the relevant programme, and of those of persons and bodies under their jurisdiction. These rights shall include in particular the rights of access, of disclosure, and of use. Such inventions and technical data shall be communicated to the participating States.
4. Those inventions and technical data that are the property of the Agency shall be disclosed to the Member States and may be used for their own purposes by these Member States and by persons and bodies under their jurisdiction, free of charge.
5. The detailed rules for the application of the foregoing provisions shall be adopted by the Council, by a two-thirds majority of all Member States.

ARTICLE IV

EXCHANGE OF PERSONS

Member States shall facilitate the exchange of persons concerned with work within the competence of the Agency, consistent with the application to any person of their laws and regulations relating to entry into, stay in, or departure from, their territories.

ARTICLE V

ACTIVITIES AND PROGRAMMES

1. The activities of the Agency shall include mandatory activities, in which all Member States participate, and optional activities, in which all Member States participate apart from those that formally declare themselves not interested in participating therein.

- (a) With respect to the mandatory activities, the Agency shall
 - (i) ensure the execution of basic activities, such as education, documentation, studies of future projects and technological research work;
 - (ii) ensure the elaboration and execution of a scientific programme including satellites and other space systems;
 - (iii) collect relevant information and disseminate it to Member States, draw attention to gaps and duplication, and provide advice and assistance for the harmonisation of international and national programmes;
 - (iv) maintain regular contact with the users of space techniques and keep itself informed of their requirements.
- (b) With respect to the optional activities, the Agency shall ensure, in accordance with the provisions of Annex III, the execution of programmes which may, in particular, include
 - (i) the design, development, construction, launching, placing in orbit, and control of satellites and other space systems;
 - (ii) the design, development, construction, and operation of launch facilities and space transport systems.

- 2. In the area of space applications the Agency may, should the occasion arise, carry out operational activities under conditions to be defined by the Council by a majority of all Member States. When so doing the Agency shall
 - (a) place at the disposal of the operating agencies concerned such of its own facilities as may be useful to them;
 - (b) ensure as required, on behalf of the operating agencies concerned, the launching, placing in orbit and control of operational application satellites;
 - (c) carry out any other activity requested by users and approved by the Council.

The cost of such operational activities shall be borne by the users concerned.

3. With respect to the coordination and integration of programmes referred to in Article II (c), the Agency shall receive in good time from Member States information on projects relating to new space programmes, facilitate consultations among the Member States, undertake any necessary evaluation and formulate appropriate rules to be adopted by the Council by a unanimous vote of all Member States. The objectives and procedures of the internationalisation of programmes are set out in Annex IV.

ARTICLE VI

FACILITIES AND SERVICES

1. For the execution of the programmes entrusted to it, the Agency
 - (a) shall maintain the internal capability required for the preparation and supervision of its tasks and, to this end, shall establish and operate such establishments and facilities as are required for its activities;
 - (b) may enter into special arrangements for the execution of certain parts of its programmes by, or in cooperation with, national institutions of the Member States, or for the management by the Agency itself of certain national facilities.
2. In implementing their programmes, the Member States and the Agency shall endeavour to make the best use of their existing facilities and available services as a first priority, and to rationalise them; accordingly they shall not set up new facilities or services without having first examined the possibility of using the existing means.

ARTICLE VII

INDUSTRIAL POLICY

1. The industrial policy which the Agency is to elaborate and apply by virtue of Article II (d) shall be designed in particular to

- (a) meet the requirements of the European space programme and the coordinated national space programmes in a cost-effective manner;
- (b) improve the world-wide competitiveness of European industry by maintaining and developing space technology and by encouraging the rationalisation and development of an industrial structure appropriate to market requirements, making use in the first place of the existing industrial potential of all Member States;
- (c) ensure that all Member States participate in an equitable manner, having regard to their financial contribution, in implementing the European space programme and in the associated development of space technology; in particular the Agency shall, for the execution of its programmes, grant preference to the fullest extent possible to industry in all Member States, which shall be given the maximum opportunity to participate in the work of technological interest undertaken for the Agency;
- (d) exploit the advantages of free competitive bidding in all cases, except where this would be incompatible with other defined objectives of industrial policy.

Other objectives may be defined by the Council by a unanimous decision of all Member States.

The detailed arrangements for the attainment of these objectives shall be those set out in Annex V and in rules which shall be adopted by the Council by a two-thirds majority of all Member States and reviewed periodically.

2. For the execution of its programmes, the Agency shall make the maximum use of external contractors consistent with the maintenance of the internal capability referred to in Article VI.1

ARTICLE VIII

LAUNCHERS AND OTHER SPACE TRANSPORT SYSTEMS

1. When defining its missions, the Agency shall take into account the launchers or other space transport systems developed within the framework of its programmes, or by a Member State, or with a significant Agency contribution, and shall grant preference to their utilisation for appropriate payloads if this does not present an unreasonable disadvantage compared with other launchers or space transport means available at the envisaged time, in respect of cost, reliability and mission suitability.
2. If activities or programmes under Article V include the use of launchers or other space transport systems, the participating States shall, when the programme in question is submitted for approval or acceptance, inform the Council of the launcher or space transport system envisaged. If during the execution of a programme the participating States wish to use a launcher or space transport system other than the one originally adopted, the Council shall make a decision on this change in accordance with the same rules as those applied in respect of the initial approval or acceptance of the programme.

ARTICLE IX

USE OF FACILITIES,
ASSISTANCE TO MEMBER STATES,
AND SUPPLY OF PRODUCTS

1. Provided that their use for its own activities and programmes is not thereby prejudiced, the Agency shall make its facilities available, at the cost of the State concerned, to any Member State that asks to use them for its own programmes. The Council shall determine, by a two-thirds majority of all Member States, the practical arrangements under which the facilities will be made available.
2. If, outside the activities and programmes referred to in Article V but within the purpose of the Agency, one or more Member States wish to engage in a project, the Council may decide by a two-thirds majority of all Member States to make available the assistance of the Agency. The resulting cost to the Agency shall be met by the Member State or States concerned.

3. (a) Products developed under a programme of the Agency shall be supplied to any Member State that has taken part in the funding of the programme in question and asks for such products to be supplied for its own purposes.

The Council shall determine by a two-thirds majority of all Member States the practical arrangements under which such products will be supplied and in particular the measures to be taken by the Agency in regard to its contractors to enable the requesting Member State to obtain those products.

- (b) This Member State may ask the Agency to state whether it considers that the prices proposed by the contractors are fair and reasonable and whether, under similar circumstances, it would consider them acceptable for the purposes of its own requirements.
- (c) The fulfilment of the requests referred to in this paragraph shall not involve the Agency in any additional costs, and all costs resulting from such requests shall be borne by the requesting Member State.

ARTICLE X

ORGANS

The organs of the Agency shall be the Council, and the Director General assisted by a staff.

ARTICLE XI

THE COUNCIL

1. The Council shall be composed of representatives of the Member States.
2. The Council shall meet as and when required, either at delegate level or at ministerial level. The meetings shall be held at the Agency's Headquarters unless the Council decides otherwise.

3. (a) The Council shall elect for two years a Chairman and vice-chairmen, who may be re-elected once for a further year. The Chairman shall direct the proceedings of the Council and ensure the preparation of its decisions; he shall inform the Member States of proposals for the execution of an optional programme; he shall assist in coordinating the activities of the organs of the Agency. He shall maintain liaison with the Member States, through their delegates to the Council, on general policy matters affecting the Agency and shall endeavour to harmonise their views thereon. In the interval between meetings, he shall advise the Director General and shall obtain from him all necessary information.
- (b) The Chairman shall be assisted by a Bureau, the composition of which shall be decided by the Council and which shall be convened by the Chairman. The Bureau shall advise the Chairman in the preparation of Council meetings.
4. When the Council meets at ministerial level it shall elect a chairman for the meeting. The next ministerial meeting shall be convened by him.
5. In addition to the functions set forth elsewhere in this Convention and in accordance with its provisions, the Council shall
 - (a) as regards the activities and programme referred to in Article V.1(a)(i) and (ii) -
 - (i) approve the activities and programme by a majority of all Member States; decisions to this effect may only be changed by new decisions adopted by a two-thirds majority of all Member States;
 - (ii) determine, by a unanimous decision of all Member States, the level of resources to be made available to the Agency for the coming five-year period;
 - (iii) determine, by a unanimous decision of all Member States, towards the end of the third year of each five-year period and after a review of the situation, the level of resources to be made available to the Agency for the new five-year period starting at the end of this third year;

- (b) as regards the activities referred to in Article V.1(a) (iii) and (iv) -
 - (i) define the policy to be followed by the Agency in pursuit of its purpose;
 - (ii) adopt, by a two-thirds majority of all Member States, recommendations addressed to Member States;
- (c) as regards the optional programmes referred to in Article V.1(b) -
 - (i) accept each programme by a majority of all Member States;
 - (ii) determine, as appropriate, in the course of their implementation, the order of priority of programmes;
- (d) adopt the annual work plans of the Agency;
- (e) as regards the budgets as defined in Annex II -
 - (i) adopt the annual general budget of the Agency by a two-thirds majority of all Member States;
 - (ii) adopt each programme budget by a two-thirds majority of the participating States;
- (f) adopt, by a two-thirds majority of all Member States, the Financial Regulations and all other financial arrangements of the Agency;
- (g) keep under review expenditure on the mandatory and optional activities referred to in Article V.1;
- (h) approve and publish the audited annual accounts of the Agency;
- (i) adopt the Staff Regulations by a two-thirds majority of all Member States;
- (j) adopt, by a two-thirds majority of all Member States, rules under which authorisation will be given, bearing in mind the peaceful purposes of the Agency, for the transfer outside the territories of the Member States of technology and products developed under the activities of the Agency or with its help;

- (k) decide on the admission of new Member States in accordance with Article XXII;
 - (l) decide on the arrangements to be made in accordance with Article XXIV in the event of a Member State's denouncing this Convention or ceasing to be a member under Article XVIII;
 - (m) take all other measures necessary for the fulfilment of the purpose of the Agency within the framework of this Convention.
6. (a) Each Member State shall have one vote in the Council. However, a Member State shall not have the right to vote on matters concerning exclusively an accepted programme in which it does not take part.
- (b) A Member State shall have no vote in the Council if the amount of its arrears of contributions to the Agency in respect of all activities and programmes covered by Article V in which it participates exceeds the assessed amount of its contributions for the current financial year. Moreover, if the amount of a Member State's arrears of contributions to any one of the programmes under Article V.1(a)(ii) or V.1(b) in which it participates exceeds the assessed amount of its contributions to that programme for the current financial year, then that Member State shall have no vote in the Council on questions relating exclusively to that programme. In any such case, the Member State may nevertheless be authorised to vote in the Council if a two-thirds majority of all Member States considers that the non-payment of contributions is due to circumstances beyond its control.
- (c) The presence of delegates from a majority of all Member States shall be necessary to constitute a quorum at any meeting of the Council.
- (d) Except where this Convention provides otherwise, decisions of the Council shall be taken by a simple majority of Member States represented and voting.
- (e) In determining the unanimity or majorities provided for in this Convention, account shall not be taken of a Member State which has no vote.

7. The Council shall adopt its own rules of procedure.
8. (a) The Council shall establish a Science Programme Committee, to which it shall refer any matter relating to the mandatory scientific programme under Article V.1(a)(ii). It shall authorise that Committee to take decisions regarding that programme, subject always to the Council's functions of determining the level of resources and adopting the annual budget. The terms of reference of the Science Programme Committee shall be determined by the Council by a two-thirds majority of all Member States and in accordance with this Article.
- (b) The Council may establish such other subordinate bodies as may be necessary for the purpose of the Agency. The establishment and terms of reference of such bodies, and the cases in which they have powers of decision, shall be determined by the Council by a two-thirds majority of all Member States.
- (c) When a subordinate body examines a question relating exclusively to one of the optional programmes referred to in Article V.1(b), non-participating States shall have no vote unless all participating States decide otherwise.

ARTICLE XII

DIRECTOR GENERAL AND STAFF

1. (a) The Council shall, by a two-thirds majority of all Member States, appoint a Director General for a defined period and may, by the same majority, terminate his appointment.
- (b) The Director General shall be the chief executive officer of the Agency and its legal representative. He shall take all measures necessary for the management of the Agency, the execution of its programmes, the implementation of its policy and the fulfilment of its purpose, in accordance with the directives issued by the Council. He shall have authority over the establishments of the Agency. He shall, in regard to the financial administration of the Agency, act in accordance with the provisions of Annex II. He shall make an annual report to the Council, and this report shall be published. He may also submit proposals concerning activities and programmes as

well as measures designed to ensure the fulfilment of the Agency's purpose. He attends meetings of the Agency without the right to vote.

- (c) The Council may postpone the appointment of the Director General for such period as it considers necessary either upon the entry into force of this Convention or in the event of a subsequent vacancy. In this event, it shall appoint a person to act in his place, who shall have such powers and responsibilities as the Council may determine.
2. The Director General shall be assisted by such scientific, technical, administrative and clerical staff as he may consider necessary, within the limits authorised by the Council.
 3.
 - (a) Senior management staff, as defined by the Council, shall be appointed and may be dismissed by the Council on the recommendation of the Director General. Appointments and dismissals made by the Council shall require a two-thirds majority of all Member States.
 - (b) Other staff members shall be appointed and may be dismissed by the Director General, acting on the authority of the Council.
 - (c) All staff shall be recruited on the basis of their qualifications, taking into account an adequate distribution of posts among nationals of the Member States. Appointments and their termination shall be in accordance with the Staff Regulations.
 - (d) Scientists who are not members of the staff and who carry out research in the establishments of the Agency shall be subject to the authority of the Director General and to any general rules adopted by the Council.
 4. The responsibilities of the Director General and the staff in regard to the Agency shall be exclusively international in character. In the discharge of their duties they shall not seek or receive instructions from any government or from any authority external to the Agency. Each Member State shall respect the international character of the responsibilities of the Director General and the staff, and shall not seek to influence them in the discharge of their duties.

ARTICLE XIII

FINANCIAL CONTRIBUTIONS

1. Each Member State shall contribute to the costs of the activities and programme referred to in Article V.1(a) and, in accordance with Annex II, to the common costs of the Agency, in accordance with a scale adopted by the Council, by a two-thirds majority of all Member States, either every three years at the time of the review referred to in Article XI.5(a)(iii), or whenever the Council, by a unanimous vote of all Member States, decides to establish a new scale. The scale of contributions shall be based on the average national income of each Member State for the three latest years for which statistics are available. Nevertheless,
 - (a) no Member State shall be required to pay contributions in excess of twenty-five percent of the total amount of contributions assessed by the Council to meet these costs;
 - (b) the Council may, by a two-thirds majority of all Member States, decide in the light of any special circumstances of a Member State to reduce its contribution for a limited period. In particular, when the annual per capita income of a Member State is less than an amount to be decided by the Council by the same majority, this shall be considered as a special circumstance within the meaning of this provision.
2. Each Member State shall contribute to the costs of each optional programme covered by Article V.1(b), unless it has formally declared itself not interested in participating therein and is therefore not a participant. Unless all participating States decide otherwise, the scale of contributions to a given programme shall be based on the average national income of each participating State for the three latest years for which statistics are available. This scale shall be revised either every three years or whenever the Council decides to establish a new scale in accordance with paragraph 1. However, no participating State shall, by the operation of this scale, be required to pay contributions in excess of twenty-five percent of the total amount of contributions to the programme concerned. Nevertheless, the percentage contribution to be made by each participating State shall be equivalent to at least twenty-five percent of

- its percentage contribution established under the provisions of paragraph 1, unless all the participating States decide otherwise when adopting the programme or during the execution of the programme.
3. The statistical systems to be used for establishing the scales of contribution referred to in paragraphs 1 and 2 shall be the same, and shall be determined in the Financial Regulations.
 4. (a) Any State that was not a party to the Convention for the establishment of a European Space Research Organisation or to the Convention for the establishment of a European Organisation for the Development and Construction of Space Vehicle Launchers and which becomes a party to this Convention shall make, in addition to its contributions, a special payment related to the current value of the assets of the Agency. The amount of this special payment shall be fixed by the Council by a two-thirds majority of all Member States.

(b) Payments made in accordance with the provisions of sub-paragraph (a) shall be used to reduce the contributions of the other Member States unless the Council decides otherwise by a two-thirds majority of all Member States.
 5. Contributions due under this Article shall be paid in accordance with Annex II.
 6. Subject to any directions given by the Council, the Director General may accept gifts or legacies to the Agency provided that they are not subject to any conditions inconsistent with the purpose of the Agency.

ARTICLE XIV

COOPERATION

1. The Agency may, upon decisions of the Council taken by unanimous votes of all Member States, cooperate with other international organisations and institutions and with Governments, organisations and institutions of non-member States, and conclude agreements with them to this effect.

2. Such cooperation may take the form of participation by non-member States or international organisations in one or more of the programmes under Article V.1(a)(ii) and V.1(b). Subject to the decisions to be taken under paragraph 1, the detailed arrangements for such cooperation shall be defined in each case by the Council by a two-thirds majority of the States participating in the programme in question. These arrangements may provide that a non-member State shall have a vote in the Council when the latter examines matters pertaining exclusively to the programme in which that State participates.
3. Such cooperation may also take the form of according associate membership to non-member States which undertake to contribute at least to the studies of future projects under Article V.1(a)(i). The detailed arrangements for each such associate membership shall be defined by the Council by a two-thirds majority of all Member States.

ARTICLE XV

LEGAL STATUS, PRIVILEGES AND IMMUNITIES

1. The Agency shall have legal personality.
2. The Agency, its staff members and experts, and the representatives of its Member States, shall enjoy the legal capacity, privileges and immunities provided for in Annex I.
3. Agreements concerning the Headquarters of the Agency and the establishments set up in accordance with Article VI shall be concluded between the Agency and the Member States on whose territories the Headquarters and establishments are situated.

ARTICLE XVI

AMENDMENTS

1. The Council may recommend to Member States amendments to this Convention and to Annex I thereto. Any Member State that wishes to propose an amendment shall notify the Director General thereof. The Director General shall inform the Member States of any amendment so notified at least three months before it is discussed by the Council.

2. Any amendment recommended by the Council shall enter into force thirty days after the Government of France has received notification of acceptance from all Member States. The Government of France shall notify all Member States of the date of entry into force of any such amendment.
3. The Council may, by a unanimous vote of all Member States, amend any of the other Annexes to this Convention, provided that such amendments do not conflict with the Convention. Any such amendment shall enter into force on a date to be decided by the Council by a unanimous vote of all Member States. The Director General shall inform all Member States of any such amendment and of the date on which it will enter into force.

ARTICLE XVII

DISPUTES

1. Any dispute between two or more Member States, or between any of them and the Agency, concerning the interpretation or application of this Convention or its Annexes, and likewise any dispute referred to in Article XXVI of Annex I, which is not settled by or through the Council, shall, at the request of any party to the dispute, be submitted to arbitration.
2. Unless the parties to the dispute decide otherwise, the arbitration procedure shall be in accordance with this Article and with additional rules to be adopted by the Council by a two-thirds majority of all Member States.
3. The Arbitration Tribunal shall consist of three members. Each party to the dispute shall nominate one arbitrator; the first two arbitrators shall nominate the third arbitrator, who shall be the chairman of the Arbitration Tribunal. The additional rules referred to in paragraph 2 shall determine the procedure to be followed if the nominations have not taken place within a specified time.
4. Member States or the Agency, not being parties to the dispute, may intervene in the proceedings with the consent of the Arbitration Tribunal if it considers that they have a substantial interest in the decision of the case.
5. The Arbitration Tribunal shall determine its seat and establish its own rules of procedure.

6. The award of the Arbitration Tribunal shall be made by a majority of its members, who may not abstain from voting. This award shall be final and binding on all parties to the dispute and no appeal shall lie against it. The parties shall comply with the award without delay. In the event of a dispute as to its meaning or scope, the Arbitration Tribunal shall interpret it at the request of any party to the dispute.

ARTICLE XVIII

NON-FULFILMENT OF OBLIGATIONS

Any Member State which fails to fulfil its obligations under this Convention shall cease to be a member of the Agency on a decision of the Council taken by a two-thirds majority of all Member States. The provisions of Article XXIV shall apply in such a case.

ARTICLE XIX

CONTINUITY OF RIGHTS AND OBLIGATIONS

On the date when this Convention enters into force, the Agency shall take over all rights and obligations of the European Space Research Organisation and of the European Organisation for the Development and Construction of Space Vehicle Launchers.

ARTICLE XX

SIGNATURE AND RATIFICATION

1. This Convention shall be open until 31 December 1975 for signature by the States which are members of the European Space Conference. The Annexes to this Convention shall form an integral part thereof.
2. This Convention shall be subject to ratification or acceptance. Instruments of ratification or acceptance shall be deposited with the Government of France.
3. After the entry into force of the Convention and pending the deposit of its instrument of ratification or acceptance, a signatory State may take part in the meetings of the Agency, without the right to vote.

ARTICLE XXI

ENTRY INTO FORCE

1. This Convention shall enter into force when the following States, being members of the European Space Research Organisation or the European Organisation for the Development and Construction of Space Vehicle Launchers, have signed it and have deposited with the Government of France their instruments of ratification or acceptance : the Kingdom of Belgium, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, the Italian Republic, the Kingdom of the Netherlands, Spain, the Kingdom of Sweden, the Swiss Confederation and the United Kingdom of Great Britain and Northern Ireland. For any State ratifying, accepting or acceding to this Convention after its entry into force, the Convention shall become effective on the date of deposit by such State of its instrument of ratification, acceptance or accession.
2. The Convention for the establishment of a European Space Research Organisation and the Convention for the establishment of a European Organisation for the Development and Construction of Space Vehicle Launchers shall terminate on the date of the entry into force of this Convention.

ARTICLE XXII

ACCESSION

1. After the entry into force of this Convention, any State may accede thereto following a decision of the Council taken by a unanimous vote of all Member States.
2. A State that wishes to accede to this Convention shall notify the Director General, who shall inform the Member States of this request at least three months before it is submitted to the Council for decision.
3. Instruments of accession shall be deposited with the Government of France.

ARTICLE XXIII

NOTIFICATIONS

The Government of France shall notify all signatory and acceding States of

- (a) the date of deposit of each instrument of ratification, acceptance or accession,
- (b) the date of entry into force of this Convention and of amendments covered by Article XVI.2,
- (c) the denunciation of the Convention by a Member State.

ARTICLE XXIV

DENUNCIATION

1. After this Convention has been in force for six years, any Member State may denounce it by notifying the Government of France, which shall notify the other Member States and the Director General. The denunciation shall take effect at the end of the financial year following that during which it was notified to the Government of France. After the denunciation has taken effect, the State concerned shall remain bound to honour its due share of the payment appropriations corresponding to approved contract authority used both under the budgets to which it was contributing for the year in which the denunciation was notified to the Government of France, and under previous budgets.
2. A Member State denouncing the Convention shall indemnify the Agency for any loss of property on its territory, unless a special agreement can be concluded with the Agency for the continued use of this property by the Agency or the continuation of certain activities of the Agency on the territory of the said State. Any such special agreement shall determine in particular to what extent and on what conditions the provisions of this Convention shall continue to apply, after the denunciation has taken effect, to the continued use of this property and the continuation of these activities.
3. A Member State denouncing the Convention, and the Agency, shall jointly determine any additional obligations to be borne by the said State.

4. The State concerned shall retain the rights it has acquired up to the date on which the denunciation takes effect.

ARTICLE XXV

DISSOLUTION

1. The Agency shall be dissolved if the number of Member States becomes less than five. It may be dissolved at any time by agreement between the Member States.
2. In the event of dissolution the Council shall appoint a liquidation authority, which will negotiate with the States on whose territories the Headquarters and establishments of the Agency are situated at the time. The legal personality of the Agency shall subsist for the purposes of the liquidation.
3. Any surplus shall be distributed among those States that are members of the Agency at the time of the dissolution, in proportion to the contributions actually made by them from the dates of their becoming parties to this Convention. In the event of a deficit, this shall be met by the same States in proportion to their contributions as assessed for the financial year then current.

ARTICLE XXVI

REGISTRATION

Upon the entry into force of this Convention, the Government of France shall register it with the Secretariat of the United Nations in accordance with Article 102 of the Charter of the United Nations.

ANNEX I
PRIVILEGES AND IMMUNITIES

ARTICLE I

The Agency shall have legal personality. It shall in particular have the capacity to contract, to acquire and dispose of movable and immovable property, and to be a party to legal proceedings.

ARTICLE II

Without prejudice to Articles XXII and XXIII, the buildings and premises of the Agency shall be inviolable.

ARTICLE III

The archives of the Agency shall be inviolable.

ARTICLE IV

1. The Agency shall have immunity from jurisdiction and execution, except
 - (a) to the extent that it shall, by decision of the Council, have expressly waived such immunity in a particular case; the Council has the duty to waive this immunity in all cases where reliance upon it would impede the course of justice and it can be waived without prejudicing the interests of the Agency;
 - (b) in respect of a civil action by a third party for damage arising from an accident caused by a motor vehicle belonging to, or operated on behalf of, the Agency, or in respect of a motor traffic offence involving such a vehicle;
 - (c) in respect of an enforcement of an arbitration award made under either Article XXV or Article XXVI;
 - (d) in the event of the attachment, pursuant to a decision by the judicial authorities, of the salaries and emoluments owed by the Agency to a staff member.
2. The Agency's property and assets, wherever situated, shall be immune from any form of requisition, confiscation, expropriation and sequestration. They shall also be immune from any form of administrative or provisional judicial

constraint, except insofar as may be temporarily necessary in connection with the prevention and investigation of accidents involving motor vehicles belonging to, or operated on behalf of, the Agency.

ARTICLE V

1. Within the scope of its official activities, the Agency, its property and income shall be exempt from direct taxes.
2. When purchases or services of substantial value and strictly necessary for the exercise of the official activities of the Agency are made or used by or on behalf of the Agency, and when the price of such purchases or services includes taxes or duties, appropriate measures shall, whenever possible, be taken by the Member States to grant exemption from such taxes or duties or to provide for their reimbursement.

ARTICLE VI

Goods imported or exported by the Agency or on its behalf, and strictly necessary for the exercise of its official activities, shall be exempt from all import and export duties and taxes and from all import or export prohibitions and restrictions.

ARTICLE VII

1. For the purpose of Articles V and VI, the official activities of the Agency shall include its administrative activities, including its operations in connection with the social security scheme, and activities undertaken in the field of space research and technology and their space applications in pursuance of the purpose of the Agency as defined in the Convention.
2. The extent to which other applications of such research and technology and activities carried out under Articles V.2 and IX of the Convention may be considered part of the Agency's official activities shall be decided in each case by the Council after consultation with the competent authorities of the Member States concerned.

3. The provisions of Articles V and VI shall not apply to taxes and duties that are no more than charges for public utility services.

ARTICLE VIII

No exemption shall be granted under Articles V or VI in respect of goods purchased or imported, or services provided, for the personal benefit of the staff members of the Agency.

ARTICLE IX

1. Goods acquired under Article V or imported under Article VI shall not be sold or given away except in accordance with conditions laid down by the Member States which have granted exemptions.
2. The transfer of goods and services between the Headquarters and the establishments of the Agency, and between its various establishments, or, for the purpose of implementing a programme of the Agency, between them and a national institution of a Member State, shall be free of charges or restrictions of any kind; if necessary, the Member States shall take all appropriate measures to grant exemption from or reimbursement of such charges or to lift such restrictions.

ARTICLE X

The circulation of publications and other information material sent by or to the Agency shall not be restricted in any way.

ARTICLE XI

The Agency may receive and hold any kind of funds, currency, cash or securities; it may dispose of them freely for any purpose provided for in the Convention and hold accounts in any currency to the extent required to meet its obligations.

ARTICLE XII

1. For its official communications and the transfer of all its documents, the Agency shall enjoy treatment not less favourable than that accorded by each Member State to other international organisations.
2. No censorship shall be applied to official communications of the Agency by whatever means of communication.

ARTICLE XIII

Member States shall take all appropriate measures to facilitate the entry into, stay in, or departure from their territories of staff members of the Agency.

ARTICLE XIV

1. Representatives of Member States shall, while exercising their functions and in the course of their journeys to and from the place of meeting, enjoy the following privileges and immunities:
 - (a) immunity from arrest and detention, and from seizure of their personal luggage;
 - (b) immunity from jurisdiction, even after the termination of their mission, in respect of acts, including words spoken and written, done by them in the exercise of their functions; this immunity shall not apply, however, in the case of a motor traffic offence committed by a representative of a Member State, nor in the case of damage caused by a motor vehicle belonging to or driven by him;
 - (c) inviolability for all their official papers and documents;
 - (d) the right to use codes and to receive documents or correspondence by special courier or sealed bag ;
 - (e) exemption for themselves and their spouses from all measures restricting entry and from aliens' registration formalities;

- (f) the same facilities in the matter of currency and exchange control as are accorded to the representatives of foreign governments on temporary official missions;
 - (g) the same customs facilities as regards their personal luggage as are accorded to diplomatic agents.
2. Privileges and immunities are accorded to representatives of Member States, not for their personal advantage, but in order to ensure complete independence in the exercise of their functions in connection with the Agency. Consequently, a Member State has the duty to waive the immunity of a representative wherever retaining it would impede the course of justice and it can be waived without prejudicing the purposes for which it was accorded.

ARTICLE XV

In addition to the privileges and immunities provided for in Article XVI, the Director General of the Agency and, when the office is vacant, the person appointed to act in his place, shall enjoy the privileges and immunities to which diplomatic agents of comparable rank are entitled.

ARTICLE XVI

The staff members of the Agency

- (a) shall have, even after they have left the service of the Agency, immunity from jurisdiction in respect of acts, including words written and spoken, done by them in the exercise of their functions; this immunity shall not apply, however, in the case of a motor traffic offence committed by a staff member of the Agency, nor in the case of damage caused by a motor vehicle belonging to or driven by him;
- (b) shall be exempt from all obligations in respect of military service;
- (c) shall enjoy inviolability for all their official papers and documents;
- (d) shall enjoy the same facilities as regards exemption from all measures restricting immigration and governing

aliens' registration as are normally accorded to staff members of international organisations, and members of their families forming part of their households shall enjoy the same facilities;

- (e) shall enjoy the same privileges in respect of exchange regulations as are normally accorded to staff members of international organisations;
- (f) shall, in time of international crisis, enjoy the same facilities as to repatriation as diplomatic agents, and the members of their families forming part of their households shall enjoy the same facilities;
- (g) shall have the right to import duty-free their furniture and personal effects at the time of first taking up their post in the Member State concerned, and the right on the termination of their functions in that Member State to export free of duty their furniture and personal effects, subject, in both cases, to the conditions considered necessary by the Member State on whose territory the right is exercised.

ARTICLE XVII

Experts other than the staff members referred to in Article XVI, in the exercise of their functions in connection with the Agency or in carrying out missions for the Agency, shall enjoy the following privileges and immunities, to the extent that these are necessary for the exercise of their functions, including during journeys made in the exercise of their functions and in the course of such missions:

- (a) immunity from jurisdiction in respect of acts, including words written and spoken, done by them in the exercise of their functions, except in the case of a motor traffic offence committed by an expert, or in the case of damage caused by a motor vehicle belonging to or driven by him; experts shall continue to enjoy this immunity after they have ceased to be employed by the Agency;
- (b) inviolability for all their official papers and documents;

- (c) the same facilities as regards monetary and exchange regulations and as regards their personal luggage as are accorded to the officials of foreign governments on temporary official missions.

ARTICLE XVIII

1. Subject to the conditions and following the procedure laid down by the Council, the Director General and the staff members of the Agency shall be subject to a tax, for the benefit of the Agency, on salaries and emoluments paid by the Agency. Such salaries and emoluments shall be exempt from national income tax; but the Member States shall retain the right to take these salaries and emoluments into account for the purpose of assessing the amount of taxation to be applied to income from other sources.
2. The provisions of paragraph 1 shall not apply to annuities and pensions paid by the Agency to its former Directors General and staff members.

ARTICLE XIX

Articles XVI and XVIII shall apply to all categories of staff members to which the Staff Regulations of the Agency apply. The Council shall decide the categories of experts to which Article XVII shall apply. The names, titles and addresses of the staff members and experts referred to in the present Article shall be communicated from time to time to the Member States.

ARTICLE XX

In the event that it establishes its own social security scheme, the Agency, its Director General and staff members shall be exempt from all compulsory contributions to national social security bodies, subject to agreements concluded with the Member States in accordance with Article XXVIII.

ARTICLE XXI

1. The privileges and immunities provided for in this Annex are not granted to the Director General, staff members and experts of the Agency for their personal advantage. They are provided solely to ensure, in all circumstances, the unimpeded functioning of the Agency and the complete independence of the persons to whom they are accorded.
2. The Director General has the duty to waive any relevant immunity in all cases wherever retaining it would impede the course of justice and it can be waived without prejudicing the interests of the Agency. In the case of the Director General, the Council is competent to waive such immunity.

ARTICLE XXII

1. The Agency shall cooperate at all times with the competent authorities of Member States in order to facilitate the proper administration of justice, to ensure the observance of police regulations and regulations concerning the handling of explosives and inflammable material, public health, labour inspection or other similar national legislation, and to prevent any abuse of the privileges, immunities and facilities provided for in this Annex.
2. The procedure for the cooperation referred to in paragraph 1 may be laid down in the complementary agreements referred to in Article XXVIII.

ARTICLE XXIII

Each Member State shall retain the right to take all precautionary measures in the interests of its security.

ARTICLE XXIV

No Member State shall be obliged to accord the privileges and immunities referred to in Articles XIV, XV, XVI(b), (e) and (g) and XVII(c) to its own nationals or persons who, at the moment of taking up their duties in that Member State, are permanent residents thereof.

ARTICLE XXV

1. When concluding written contracts, other than those concluded in accordance with the Staff Regulations, the Agency shall provide for arbitration. The arbitration clause or the special arbitration agreement concluded to this end shall specify the law applicable and the country where the arbitrators sit. The arbitration procedure shall be that of that country.
2. The enforcement of the arbitration award shall be governed by the rules in force in the State on whose territory the award is to be executed.

ARTICLE XXVI

Any Member State may submit to the international Arbitration Tribunal referred to in Article XVII of the Convention any dispute

- (a) arising out of damage caused by the Agency;
- (b) involving any other non-contractual responsibility of the Agency;
- (c) involving the Director General, a staff member or an expert of the Agency and in which the person concerned can claim immunity from jurisdiction under Articles XV, XVI(a) or XVII(a), if this immunity is not waived in accordance with Article XXI. In such disputes where the claim for immunity from jurisdiction arises under Articles XVI(a) or XVII(a), the responsibility of the Agency shall in such arbitration be substituted for that of the persons referred to in those Articles.

ARTICLE XXVII

The Agency shall make suitable provision for the satisfactory settlement of disputes arising between the Agency and the Director General, staff members or experts in respect of their conditions of service.

ARTICLE XXVIII

The Agency may, on a decision of the Council, conclude with one or more Member States complementary agreements to give effect to the provisions of this Annex as regards such State or States, and other arrangements to ensure the efficient functioning of the Agency and the safeguarding of its interests.

ANNEX II
FINANCIAL PROVISIONS

ARTICLE I

1. The financial year of the Agency shall run from the first of January to the thirty-first of December following.
2. The Director General shall, not later than the first of September of each year, forward to the Member States
 - (a) a draft general budget,
 - (b) draft programme budgets.
3. The general budget shall comprise
 - (a) an expenditure part, showing the estimated expenditure relating to the activities referred to in Article V.1(a)(i), (iii) and (iv) of the Convention, including the fixed common costs, as well as to the non-fixed common costs and the support costs concerning the programmes referred to in Article V.1(a)(ii) and V.1(b) of the Convention; the fixed and non-fixed common costs and the support costs shall be defined in the Financial Regulations; the estimates shall be broken down by type of activity and by general heading;
 - (b) an income part, showing
 - (i) the contributions of all Member States towards the expenditure relating to the activities referred to in Article V.1(a)(i), (iii) and (iv) of the Convention, including the fixed common costs;
 - (ii) the contributions of participating States to the non-fixed common costs and support costs allocated, in accordance with the Financial Regulations, to the programmes referred to in Article V.1(a)(ii) and V.1(b) of the Convention;
 - (iii) other income.
4. Each programme budget shall comprise
 - (a) an expenditure part, showing
 - (i) the estimated direct expenditure relating to the programme and broken down by general heading as defined in the Financial Regulations;

- (ii) the estimated non-fixed common costs and support costs allocated to the programme;
- (b) an income part, showing
 - (i) the contributions of participating States to the direct expenditure referred to in sub-paragraph (a) (i);
 - (ii) other income;
 - (iii) for information, the contributions of participating States to the non-fixed common costs and the support costs referred to in sub-paragraph (a) (ii), as provided for in the general budget.
- 5. The approval of the general budget and of each programme budget by the Council shall take place before the beginning of each financial year.
- 6. The general budget and the programme budgets shall be prepared and executed in accordance with the Financial Regulations.

ARTICLE II

- 1. If circumstances so require, the Council may ask the Director General to present a revised budget to it.
- 2. No decision involving additional expenditure shall be deemed to have been approved until the Council has approved the Director General's estimate of the additional expenditure involved.

ARTICLE III

- 1. The Director General shall, if so requested by the Council, include in the general budget or in the programme budget concerned the estimates of expenditure for subsequent years.
- 2. In connection with the adoption of the annual budgets of the Agency the Council shall re-examine the level of resources and make the necessary adjustments in the light of price-level

variations and any unforeseen changes during the execution of the programmes.

ARTICLE IV

1. The expenditure approved for activities covered by Article V of the Convention shall be met by contributions assessed in accordance with Article XIII of the Convention.
2. When a State accedes to the Convention in accordance with Article XXII thereof, the contributions of the other Member States shall be reassessed. A new scale, which shall take effect on a date to be decided by the Council, shall be established on the basis of the national income statistics for the years used in calculating the existing scale. Where appropriate, reimbursements shall be made to ensure that the contributions paid by all Member States for the current year are in accordance with the decision of the Council.
3. (a) The arrangements by which contributions are to be made, which shall ensure the proper financing of the Agency, shall be determined in the Financial Regulations.
(b) The Director General shall notify Member States of the amount of their contributions and of the dates on which payments shall be made.

ARTICLE V

1. The budgets of the Agency shall be expressed in accounting units. The accounting unit is defined by 0.88867088 gramme of fine gold; the Council may, by a unanimous decision of all Member States, adopt another definition of the accounting unit.
2. Each Member State shall pay its contributions in its own currency.

ARTICLE VI

1. The Director General shall keep an accurate account of all income and expenditure. At the end of each financial year the Director General shall, in accordance with the Financial Regulations, draw up separate annual accounts for each programme covered by Article V of the Convention.
2. Budgetary accounts, the budget and the financial management, as well as any other measure having financial implications, shall be examined by an Audit Commission. The Council shall designate, by a two-thirds majority of all Member States, the Member States which, in rotation on an equitable basis, shall be invited to nominate, preferably from among their own senior officials, auditors to serve on this Commission, and shall nominate by the same majority, from among the auditors, a Chairman of the Commission for a period not exceeding three years.
3. The purpose of the audit, which shall be based on records and, if necessary, done on the spot, shall be to verify that expenditure has conformed with the budget estimates and that the records are lawful and correct. The Commission shall also report on the economic management of the Agency's financial resources. At the end of each financial year, the Commission shall draw up a report, which shall be adopted by the majority of its members and thereupon transmitted to the Council.
4. The Audit Commission shall discharge such other functions as are set out in the Financial Regulations.
5. The Director General shall furnish the auditors with such information and help as they may require to carry out their duties.

ANNEX III

OPTIONAL PROGRAMMES COVERED BY
ARTICLE V.1(b) OF THE CONVENTION

ARTICLE I

1. If a proposal for the carrying out of an optional programme covered by Article V.1(b) of the Convention is made, the Chairman of the Council shall communicate it to all Member States for examination.
2. Once the Council has, in accordance with Article XI.5(c) (i) of the Convention, accepted the carrying out of an optional programme within the framework of the Agency, any Member State that does not intend to take part in the programme shall, within three months, formally declare that it is not interested in participating therein; the participating States shall draw up a Declaration which, subject to Article III.1, shall set out their undertaking in respect of
 - (a) the Phases of the programme;
 - (b) the conditions under which it is to be carried out, including the timing, the indicative financial envelope and sub-envelopes relating to Phases of the programme, and any other provisions for its management and execution;
 - (c) the scale of contributions determined in accordance with Article XIII.2 of the Convention;
 - (d) the duration and amount of the first binding financial commitment.
3. The Declaration shall be transmitted to the Council for information, together with draft implementing rules submitted to it for approval.
4. If a participating State is unable to accept the provisions set out in the Declaration and implementing rules within the time limit laid down in the Declaration, it shall cease to be a participating State. Other Member States may subsequently become participating States by accepting these provisions in accordance with conditions to be determined with the participating States.

ARTICLE II

1. The programme shall be executed in accordance with the provisions of the Convention and, unless otherwise stipulated in this Annex or in the implementing rules, with the rules and procedures in force in the Agency. Decisions of the Council shall be taken in accordance with this Annex and the implementing rules. Failing any specific provisions in this Annex or in the implementing rules, the voting rules laid down in the Convention or the rules of procedure of the Council shall apply.
2. Decisions on the start of a new Phase shall be taken by a two-thirds majority of all participating States, provided that this majority represents at least two-thirds of the contributions to the programme. If the decision to start a new Phase cannot be taken, the participating States that wish, nevertheless, to continue with the Programme shall consult among themselves and determine arrangements for such continuation. They shall report accordingly to the Council, which shall take any measures that may be required.

ARTICLE III

1. If the programme includes a project definition phase, the participating States shall, at the end of the phase, reassess the cost of the programme. If the reassessment shows that there is a cost overrun greater than 20% of the indicative financial envelope referred to in Article I, any participating State may withdraw from the programme. The participating States that wish, nevertheless, to continue with the programme shall consult among themselves and determine the arrangements for such continuation. They shall report accordingly to the Council, which shall take any measures that may be required.
2. During each Phase, as defined in the Declaration, the Council shall, by a two-thirds majority of all participating States, adopt annual budgets within the relevant financial envelope or sub-envelopes.
3. The Council shall lay down a procedure enabling the financial envelope or sub-envelopes to be revised in the event of price-level variations.

4. When the financial envelope or a financial sub-envelope has to be revised for reasons other than those referred to in paragraphs 1 and 3, the participating States shall apply the following procedure:
 - (a) No participating State shall be entitled to withdraw from the programme unless the cumulative cost overrun is greater than 20% of the initial financial envelope, or of the revised envelope defined in accordance with the procedure laid down in paragraph 1.
 - (b) If the cumulative cost overrun is greater than 20% of the relevant financial envelope, any participating State may withdraw from the programme. Those States that wish, nevertheless, to continue with the programme shall consult among themselves, determine the arrangements for such continuation and report accordingly to the Council, which shall take any measures that may be required.

ARTICLE IV

The Agency, acting on behalf of the participating States, shall be the owner of the satellites, space systems and other items produced under the programme as well as of the facilities and equipment acquired for its execution. Any transfer of ownership shall be decided on by the Council.

ARTICLE V

1. Denunciation of the Convention by a Member State shall entail the withdrawal of that Member State from all the programmes in which it participates. Article XXIV of the Convention shall apply to the rights and obligations arising out of these programmes.
2. Discontinuations under Article II.2 and withdrawals under Article III.1 and III.4(b) shall take effect on the date on which the Council receives the information referred to in those Articles.

3. A participating State that decides not to continue with a programme under Article II.2, or withdraws from a programme under Article III.1 et III.4(b), shall retain the rights acquired by the participating States up to the effective date of its withdrawal. Thereafter, no further right or obligation shall arise from the remaining part of the programme in which it no longer participates. It shall remain bound to finance its share of the payment appropriations corresponding to contract authority approved under the budget for the current or previous financial years and relating to the programme Phase whose execution is in progress. However, the participating States may unanimously agree, in the Declaration, that a State which decides not to continue with, or withdraws from, a programme shall be bound to finance its total share of the initial envelope or the sub-envelopes of the programme.

ARTICLE VI

1. The participating States may decide to discontinue a programme by a two-thirds majority of all participating States representing at least two-thirds of the contributions to the programme.
2. The Agency shall notify the participating States of the completion of the programme in accordance with the implementing rules; these implementing rules shall cease to be in force upon receipt of such notification.

ANNEX IV

INTERNATIONALISATION OF NATIONAL PROGRAMMES

ARTICLE I

The principal objective of the internationalisation of national programmes shall be that each Member State shall make available for participation by other Member States, within the framework of the Agency, any new civil space project which it intends to undertake, either alone or in collaboration with another Member State. With this end in view:

- (a) each Member State shall notify to the Director General of the Agency any such project before the beginning of its phase B (project definition phase);
- (b) the timing and content of proposals for participation in a project should make it possible for other Member States to undertake a significant share of the work involved; an early indication shall be given to the Agency of any reasons which make this impracticable and of any conditions which the initiating Member State may wish to place on the allocation of work to other Member States;
- (c) the initiating Member State shall explain the arrangements it proposes for the technical management of the project and indicate the reasons for them;
- (d) the initiating Member State shall use its best endeavours to accommodate all reasonable responses, subject to agreement being reached, within the timescale demanded by project decisions, on the level of the cost and the way in which the cost and work are shared; it shall subsequently submit a formal proposal under Annex III where the project is to be executed in accordance with the terms of that Annex;
- (e) the execution of a project within the framework of the Agency shall not be excluded merely because that project has failed to attract the participation of other Member States to the extent originally proposed by the initiating Member State.

ARTICLE II

Member States shall use their best endeavours to ensure that the bilateral and multilateral space projects which they undertake with non-member States do not prejudice the scientific, economic or industrial objectives of the Agency. In particular, they shall

- (a) inform the Agency of such projects, in so far as they judge that this would not prejudice the projects;
- (b) discuss with the other Member States projects so communicated, with the object of establishing the scope for wider participation. If wider participation proves possible, the procedures laid down in Article I(b) to (e) shall apply.

ANNEX V
INDUSTRIAL POLICY

ARTICLE I

1. In implementing the industrial policy referred to in Article VII of the Convention, the Director General shall act in conformity with the provisions of this Annex and with the directives of the Council.
2. The Council shall keep under review the industrial potential and industrial structure in relation to the Agency's activities, and in particular
 - (a) the general structure of industry, and industrial groupings,
 - (b) the degree of specialisation desirable in industry and methods of achieving it,
 - (c) the coordination of relevant national industrial policies,
 - (d) interaction with any relevant industrial policies of other international bodies,
 - (e) the relationship between industrial production capacity and potential markets,
 - (f) the organisation of contacts with industry,in order to be able to monitor and, where appropriate, adapt the Agency's industrial policy.

ARTICLE II

1. In the placing of all contracts, the Agency shall give preference to industry and organisations of the Member States. However, within each optional programme covered by Article V.1(b) of the Convention, particular preference shall be given to industry and organisations in the participating States.
2. The Council shall determine whether and to what extent the Agency may derogate from the above preference clause.
3. The question whether an enterprise should be considered to belong to one of the Member States shall be settled in the light of the following criteria: location of the enterprise's registered office, decision-making centres and research

centres, and territory on which the work is to be carried out. In doubtful cases the Council shall decide whether an enterprise shall be considered to belong to one of the Member States, or not.

ARTICLE III

1. The Director General shall, at an early stage in the contract action and before invitations to tender are sent out, submit for the approval of the Council his proposal on the procurement policy to be followed, for any contract which either
 - (a) has an estimated value above limits which shall be defined in the rules concerning industrial policy and which will depend on the nature of the work; or
 - (b) is, in the opinion of the Director General, not adequately covered by the rules concerning industrial policy or by additional guidelines established by the Council, or might give rise to a conflict with those rules or guidelines.
2. The additional guidelines referred to in paragraph 1(b) shall be established from time to time by the Council if it considers them helpful for the purpose of distinguishing those areas where prior submission under paragraph 1 is necessary.
3. The Agency's contracts shall be awarded directly by the Director General without further reference to the Council except in the following cases:
 - (a) when the evaluation of the offers received suggests a recommendation for the choice of a contractor which would be contrary either to the prior instructions issued by the Council under the terms of paragraph 1, or to any general guidelines on industrial policy adopted as a result of the Council's studies under Article I.2 the Director General shall then submit the case to the Council for decision, explaining why he considers a deviation to be necessary and indicating also whether another decision by the Council would constitute, technically, operationally or otherwise, an advisable alternative;
 - (b) where the Council has decided for specific reasons to undertake a review before a contract is awarded.

4. The Director General shall report to the Council, at regular intervals to be specified, on the contracts awarded during the previous period, and on the contract actions planned for the subsequent period, in order that the Council may monitor the implementation of the Agency's industrial policy.

ARTICLE IV

The geographical distribution of all the Agency's contracts shall be governed by the following general rules:

1. A Member State's overall return coefficient shall be the ratio between its percentage share of the total value of all contracts awarded among all Member States and its total percentage contributions. However, in the calculation of this overall return coefficient, no account shall be taken of contracts placed in, or contributions made by, Member States in a programme undertaken
 - (a) under Article VIII of the Convention for the establishment of a European Space Research Organisation, provided that the relevant Arrangement contains provisions to this effect or that all participating States subsequently unanimously so agree ;
 - (b) under Article V.1(b) of the present Convention provided that all original participating States unanimously so agree.
2. For the purpose of calculating return coefficients, weighting factors shall be applied to the value of contracts on the basis of their technological interest. These weighting factors shall be defined by the Council. Within a single contract having a significant value, more than one weighting factor may be applied.
3. Ideally the distribution of contracts placed by the Agency should result in all countries having an overall return coefficient of 1.
4. The return coefficients shall be computed quarterly and shown cumulatively for the purpose of the formal reviews referred to in paragraph 5.
5. Formal reviews of the situation of geographical distribution of contracts shall take place every three years.

6. The distribution of contracts between formal reviews of the situation should be such that, at the time of each formal review, the cumulative overall return coefficient of each Member State does not substantially deviate from the ideal value. For the first three-year period, the lower limit for the cumulative return coefficient is fixed at 0.8. At the time of each formal review, the Council may revise the value of this lower limit for the subsequent three-year period, provided that it shall never be lower than 0.8.
7. Separate assessments shall be made, and reported to the Council, of the return coefficients for various categories of contract to be defined by it, in particular advanced research and development contracts and contracts for project-related technology. The Director General shall discuss these assessments with the Council, at regular intervals to be specified, with the aim of identifying the action needed to redress any imbalances.

ARTICLE V

1. If, at one of the formal reviews to be held at the end of each three-year period, the overall return coefficient of any Member State is found to be below the lower limit defined in Article IV.6, the Director General shall submit to the Council proposals designed to redress the situation within one year. These proposals shall keep within the Agency's rules governing the placing of contracts.
2. If, after this period of one year, the imbalance still persists, the Director General shall submit to the Council proposals in which the need to remedy the situation takes precedence over the Agency's rules governing the placing of contracts.

ARTICLE VI

Any decision taken on industrial policy grounds which has the effect of excluding a particular firm or organisation of a Member State from competing for the Agency's contracts in a particular field shall require the agreement of that Member State.

IN WITNESS WHEREOF, the undersigned plenipotentiaries, having been duly authorised thereto, have signed this Convention.

DONE at Paris, on 30 May 1975, in the German, English, Spanish, French, Italian, Dutch and Swedish languages all these texts being equally authentic, in a single original, which shall be deposited in the archives of the Gouvernement of France, which shall transmit certified copies to all signatory and acceding States.

Texts of this Convention drawn up in other official languages of the Member States of the Agency shall be authenticated by a unanimous decision of all Member States, such texts shall be deposited in the archives of the Gouvernement of France, which shall transmit certified copies to all signatory and acceding States.

For the Federal Republic of Germany

H. MATTHOFER S. VON BRAUN

For the Kingdom of Belgium

CH. DE KERCHOVE DE DENTERGHEM

For the Kingdom of Denmark

P. FISHER

For Spain

MIGUEL MARIA DE LOJENDEO

For the French Republic

M. D'ORNANO

For Ireland

For the Italian Republic

M. PEDINI

For the Kingdom of Norway

For the Kingdom of the Netherlands

DE RANITS

For the United Kingdom of Great Britain and Northern Ireland

LORD BESWICK

For the Kingdom of Sweden

I. HAGGLOF

For the Swiss Confederation

P. DUPONT

FINAL ACT
OF THE CONFERENCE OF PLENIPOTENTIARIES
FOR THE ESTABLISHMENT OF A EUROPEAN SPACE AGENCY

1. The European Space Conference decided on 20 December 1972 that a new organisation, called the European Space Agency, would be formed out of the European Space Research Organisation (ESRO) and the European Organisation for the Development and Construction of Space Vehicle Launchers (ELDO). The Committee of Alternates of the European Space Conference set up a European Space Agency Working Group, which it asked to examine the implementation of this decision. On the basis of the discussions held in the Committee of Alternates of the European Space Conference and in the European Space Agency Working Group, the Secretariat of the European Space Conference prepared a draft Convention for the Establishment of a European Space Agency.
2. The European Space Conference confirmed on 31 July 1973 its decision of 20 December 1972 and approved the broad lines along which studies were being directed. It approved a draft Convention on 15 April 1975.
3. At the invitation of the Gouvernement of France, and after consultation with the President of the European Space Conference, a Conference of Plenipotentiaries for the establishment of a European Space Agency met in Paris on 30 May 1975, at the Ministry of Foreign Affairs.
4. The following were represented :
 - (a) The Governments of the following States,
 represented by delegates: the kingdom of Belgium, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, Ireland, the Italian Republic, the Kingdom of the Netherlands, the Kingdom of Norway, Spain, the Kingdom of Sweden, the Swiss Confederation and the United Kingdom of Great Britain and Northern Ireland;
 represented by observers: the Commonwealth of Australia and the Republic of Austria ;
 - (b) The following international organisations :
 the Council of Europe,
 the European Space Research Organisation,
 the European Organisation for the Development and Construction of Space Vehicle Launchers.

5. The Conference constituted its Bureau as follows:

Chairman: Mr M. d'Ornano (France)
 Secretary: Mr R. Gibson, Director General of ESRO,
 and established a Credentiale Committee
 presided by Mr P. Creola (Switzerland),
 assisted by Mr C. Fernandez-Espeso (Spain)
 and by Mr E. Winther (Denmark).

The Conference adopted the report of the Credentials Committee.

6. The Conference heard a report from the President of the European Space Conference on the steps taken to implement the decisions taken by the European Space Conference on 20 December 1972 and 31 July 1973. It noted in particular the progress made with programmes undertaken within a common European framework: the Spacelab Programme, the Marots Maritime Satellite Programme and the Ariane Launcher Programme. It also took note of the Resolutions of the Councils of ESRO and ELDO and the other steps taken or to be taken concerning the transfer of assets and staff to the European Space Agency, with the aim of permitting continuity in current programmes and activities.
7. On the basis of the Resolution adopted by the European Space Conference on 15 April 1975, the Conference of Plenipotentiaries adopted the text of the Convention for the Establishment of a European Space Agency. This Convention includes five Annexes, which form an integral part thereof.
8. In addition the Conference adopted the ten attached Resolutions.
9. The Conference decided that the Convention for the Establishment of a European Space Agency should be opened for signature on 30 May 1975 and should remain open for signature until 31 December 1975.
10. The Conference noted that, in accordance with Article XXI, the Convention will enter into force when the following States, being members of ESRO or ELDO, have signed it and have deposited their instruments of ratification or acceptance with the Government of France :

the Kingdom of Belgium, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, the Italian Republic, the Kingdom of the Netherlands, Spain, the Kingdom of Sweden, the Swiss Confederation and the United Kingdom of Great Britain and Northern Ireland.

RESOLUTION NO.1Functioning "de facto" of the European Space Agency

THE CONFERENCE

RECOMMENDS that representatives of Member States on the ESRO and ELDO Councils should meet jointly as from the day following the date of signature of the Final Act, thus acting in anticipation of the establishment of the Council of the European Space Agency,

RECOMMENDS, in order to enable the Agency to function de facto as from the aforementioned day, that in the application of the Conventions for the establishment of ESRO and ELDO the provisions of the Convention for the Establishment of a European Space Agency should be taken into account to the greatest possible extent,

INVITES the Government of France, as depositary Government, to take all necessary steps to convene the first meeting of the Council of the Agency within one month from the entry into force of the Convention.

RESOLUTION NO.2Assumption of the rights and obligations of ELDO

THE CONFERENCE,

CONSIDERING on the one hand that, under the terms of Article XIX of the Convention for the Establishment of a European Space Agency, the latter will take over all the rights and obligations of ESRO and ELDO, and that on the other hand the liquidation of ELDO programmes that is currently in progress will continue,

RECOMMENDS the Councils of ESRO and ELDO, meeting jointly and acting in anticipation of the establishment of the Council of the European Space Agency, to examine, as soon as possible and in any case before the entry into force of the Convention for the Establishment of a European Space Agency, a detailed inventory of the rights and obligations of ELDO which might be useful for the activities and programmes of the Agency and could therefore be taken over by ESRO, pursuing its activities under the name of "European Space Agency", pending the entry into force

of the Convention for the Establishment of a European Space Agency,

NOTES that those ELDO rights and obligations not included in the detailed inventory referred to above will not be taken over by ESRO and that any costs arising from them shall be borne by those Member States of the Agency which as Member States of ELDO are bearing them at the time the Convention for the Establishment of a European Space Agency enters into force.

RESOLUTION NO.3

Subordinate Bodies of the European Space Agency

THE CONFERENCE

NOTES that, in view of the importance of the tasks entrusted to the Council of the European Space Agency, it should be assisted by subordinate bodies in a number of areas,

CONSIDERS that the assistance by such bodies to the Council should be given in particular in the areas of administration and finance, especially from the point of view of the economic and financial aspects of the programmes, and in the areas of basic activities, the scientific programme, and industrial policy,

INVITES the Council to establish the necessary subordinate bodies, in addition to the Science Programme Committee referred to in the Convention for the Establishment of a European Space Agency,

NOTES that Programme Boards exist for the current optional programmes but that the Convention does not require the creation of such Boards in respect of future optional programme,

INVITES the Council and the States participating in current optional programmes to consider jointly at an early date any desirable changes in the procedure for the supervision of these programmes, on the understanding that such changes must be consistent both with the spirit of the Convention and with the rights of participating States under the existing Arrangements,

CONSIDERS that the Council will have to make suitable arrangements to supervise future optional programmes, in particular taking into account the interests of users.

RESOLUTION NO.4Optional programmes of the European Space Agency

THE CONFERENCE

NOTES WITH SATISFACTION the present degree of support by Member States for the current optional programmes,

CONSIDERS that in order for the European Space Agency to be viable there must continue to be wide participation in the optional programmes as a whole,

NOTES the intention of Member States not to call in question the agreement on programmes reached in December 1971 in the ESRO Council,

RECOMMENDS in consequence that the Governments should ensure that the Agency undertakes enough optional programmes to guarantee its viability, and that each one of these programmes is financed by the greatest possible number of Member States.

RESOLUTION NO.5Applications Programmes

THE CONFERENCE

AFFIRMS its resolve to see Europe assume its role on the space applications market through the development of appropriate systems,

CONSIDERS that the programmes of the European Space Agency must facilitate the development of operational systems that would be acceptable to and operated by the users,

RECOGNISES the need for consultation among the users with a view to setting up in good time the bodies required for the attainment of this goal,

INVITES the Agency to organise the necessary consultations with users, starting from the definition phase of the products it develops, in order to provide the conditions for the successful outcome of a space applications policy.

RESOLUTION NO.6Launchers and other space transport systems

THE CONFERENCE,

RECALLING the decision taken by the European Space Conference on 20 December 1972 to undertake the Ariane and Spacelab programmes,

CONSIDERING the consequent substantial investment by Member States in the development of these launchers and space transport systems,

AFFIRMS that the Member States agree to give preference to, and promote the use of, products developed under the programmes of the European Space Research Organisation and the European Space Agency,

RECOMMENDS, in consequence, that the Agency should, within the terms of Article VIII of the Convention for the Establishment of a European Space Agency, endeavour to plan its missions and define the technical characteristics of the satellites and other space systems it develops in such a way that the fullest possible use is made of the launchers and other space transport systems existing in Europe.

RESOLUTION NO.7Use of the Potential and Facilities of Member States

THE CONFERENCE,

RECOGNISING the need to give preference to the use of the potential and facilities developed by the European Space Agency or belonging to it, and also the need to avoid setting up redundant facilities in Europe,

INVITES the Agency, when it has need, to make use of the potential and facilities of the Member States, provided that there exists an economic case for so doing,

ACCEPTS the principle that, where an activity or programme of the Agency makes use of such potential and facilities, the resulting costs shall be borne by the relevant budget of the Agency, the composition and method of calculation of such costs being agreed by the participating States on a case-by-case basis,

INVITES the Agency to take the appropriate measures.

RESOLUTION NO.8Use of languages

THE CONFERENCE,

CONSIDERING the need to settle, before the signature of the Convention for the Establishment of a European Space Agency, the question of the future use of languages in this Agency,

TAKING INTO ACCOUNT the desire, on the one hand, to facilitate the presentation of Member States' views in the Agency's delegate bodies and, on the other hand, to endow the Agency with working rules that guarantee the effectiveness of its proceedings and the economical use of funds,

AGREES that the following rules shall apply in the Agency:

1. With regard to meetings of any organ, committee or working group of the Agency, the English, French and German languages may be used, and interpretation will be provided into those three languages.
2. With regard to documents, the following provisions will apply:
 - (a) Official documents of the Agency bearing a reference number relating to the Council, one of its subordinate bodies or a working group, will be issued in English, French and German.
 - (b) All other documents of the Agency will be issued in English and French.
 - (c) Documents of Member States, of a scientific, technical, legal or administrative nature, should preferably be submitted to the Agency in English or French but may be sent to the Agency in any other language of a Member State.

3. Additionally, in meetings of the Council or any of its subordinate bodies at which questions relating to the Spacelab programme are discussed, the Italian language may be used and interpretation will be provided; official Agency documents bearing a reference number of the Council or one of its subordinate bodies and concerning that programme will also be issued in Italian.
4. Upon request by a Member State delegation, arrangements will be made for the use of any language of that Member State other than those mentioned in paragraphs 1, 2(a) and 2(b), in a meeting referred to in paragraph 1, or for the translation into that language of a document referred to in paragraph 2(a) or 2(b), it being understood that such a request will be made only in respect of a meeting or a document in which that Member State has a particular interest.
5. The Agency will normally conduct its correspondence in English or French; delegations shall write to the Agency preferably in English or French, but, should they find it appropriate, they may do so in any other language of a Member State.

STRESSES that it is not intended that the application of the above rules should lead to an increase in translations for the internal use of the Agency,

EXPRESSES the strong desire that, as in the past, Member States will so avail themselves of these facilities that additional expense and administrative complications are minimised,

RECOMMENDS that the language arrangements should be reviewed by the Council of the Agency if at any time disproportionate use appears to be made by delegations of the facilities referred to above.

RESOLUTION NO.9Fiscal provisions applicable to the Staff of the European Space Agency

THE CONFERENCE

RECOMMENDS that, for the implementation of Article XVIII of Annex I to the Convention for the Establishment of a European Space Agency, the Agency should each year provide the Director General and members of the staff with certificates for their tax authorities, showing the amount of salary paid, and that the same arrangement should apply mutatis mutandis to pensions and annuities paid to former Directors General and former staff members.

RESOLUTION NO.10Relations with the Council of Europe

THE CONFERENCE,

HAVING NOTED the wish expressed by the Council of Europe to establish relations with the European Space Agency in continuation of those existing with ESRO and ELDO,

RECOMMENDS that the Council of the European Space Agency communicate, for information, the Annual Report of the Agency to the Council of Europe.

IN WITNESS WHEREOF, the plenipotentiaries have signed this Final Act.

DONE at Paris on 30 May 1975 in the German, English, Spanish, French, Italian, Dutch and Swedish languages, all these texts being equally authentic, in a single original, which shall be deposited in the archives of the Government of France, which shall transmit certified copies to the States having signed this Final Act and to the States that become parties to the Convention.

For the Federal Republic of Germany

H. MATTHÖFER S. VON BRAUN

For the Kingdom of Belgium

CH. DE KERCHOVE DE DENTERGHEM

For the Kingdom of Denmark

P. FISHER

For Spain

MIGUEL MARIA DE LOJENDEO

For the French Republic

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For the Italian Republic

M. PEDINI

For the Kingdom of Norway

HAAKON NORD

For the Kingdom of the Netherlands

DE RANITS

For the United Kingdom of Great Britain and Northern Ireland

LORD BESWICK

For the Kingdom of Sweden

I. HÄGGLÖF

For the Swiss Confederation

P. DUPONT

INTERNATIONAL TELECOMMUNICATION CONVENTION

and

RADIO REGULATIONS

The following pages contain extracts from the International Telecommunication Convention and from the Radio Regulations appended thereto. These documents also possess full treaty status, having been submitted to the Senate for advice and consent to ratification and having been ratified by the President.

In their entirety, these documents constitute U.S. commitments to varying degrees in all aspects of international telecommunications. The extract of the Convention serves to briefly indicate the scope of that commitment. The extracts of the radio regulations consist of only those pages containing material directly affecting considerations with regard to the use of direct broadcasting satellites (which has been side lined for clarity). It must be emphasized that the radio regulations also contain much larger quantities of material affecting all other forms of space telecommunications applications, and even greater quantities of material affecting telecommunications using other than space techniques. For the balance of this information, the reader is urged to consult the documents in their original form. They are far too voluminous to permit their reproduction here in their entirety.

INTERNATIONAL TELECOMMUNICATION CONVENTION

FIRST PART

BASIC PROVISIONS

Preamble

- 1 While fully recognizing the sovereign right of each country to regulate its telecommunication, the plenipotentiaries of the Contracting Governments, with the object of facilitating relations and cooperation between the peoples by means of efficient telecommunication services, have agreed to establish this Convention which is the basic instrument of the International Telecommunication Union.

CHAPTER I

Composition, Purposes and Structure of the Union

ARTICLE 1

Composition of the Union

- 2 1. The International Telecommunication Union shall comprise Members which, having regard to the principle of universality and the desirability of universal participation in the Union, shall be:
- 3 a) any country listed in Annex 1 which signs and ratifies, or accedes to, the Convention;

- 4 *b)* any country, not listed in Annex 1, which becomes a Member of the United Nations and which accedes to the Convention in accordance with Article 46;
 - 5 *c)* any sovereign country, not listed in Annex 1 and not a Member of the United Nations, which applies for Membership of the Union and which, after having secured approval of such application by two-thirds of the Members of the Union, accedes to the Convention in accordance with Article 46.
- 6 2. For the purpose of 5, if an application for Membership is made, by diplomatic channel and through the intermediary of the country of the seat of the Union, during the interval between two Plenipotentiary Conferences, the Secretary-General shall consult the Members of the Union; a Member shall be deemed to have abstained if it has not replied within four months after its opinion has been requested.

ARTICLE 2

Rights and Obligations of Members

- 7 1. Members of the Union shall have the rights and shall be subject to the obligations provided for in the Convention.
- 8 2. Rights of Members in respect of their participation in the conferences, meetings and consultations of the Union are:
 - 9 *a)* all Members shall be entitled to participate in conferences of the Union, shall be eligible for election to the Administrative Council and shall have the right to nominate candidates for election to any of the permanent organs of the Union;
 - 9 *b)* each Member shall have one vote at all conferences of the Union, at all meetings of the International Consultative Committees and, if it is a Member of the Administrative Council, at all sessions of that Council;
 - 10 *c)* each Member shall also have one vote in all consultations carried out by correspondence.

ARTICLE 3

Seat of the Union

- 11 The seat of the Union shall be at Geneva.

ARTICLE 4

Purposes of the Union

- 12 1. The purposes of the Union are:
- 13 *a)* to maintain and extend international cooperation for the improvement and rational use of telecommunications of all kinds;
- 14 *b)* to promote the development of technical facilities and their most efficient operation with a view to improving the efficiency of telecommunications services, increasing their usefulness and making them, so far as possible, generally available to the public;
- 15 *c)* to harmonize the actions of nations in the attainment of those ends.
- 16 2. To this end, the Union shall in particular:
- 17 *a)* effect allocation of the radio frequency spectrum and registration of radio frequency assignments in order to avoid harmful interference between radio stations of different countries;
- 18 *b)* coordinate efforts to eliminate harmful interference between radio stations of different countries and to improve the use made of the radio frequency spectrum;
- 19 *c)* coordinate efforts with a view to harmonizing the development of telecommunications facilities, notably those using space techniques, with a view to full advantage being taken of their possibilities;
- 20 *d)* foster collaboration among its Members with a view to the establishment of rates at levels as low as possible consistent with an efficient service and taking into account the necessity for maintaining independent financial administration of telecommunication on a sound basis;

- 19 *e)* foster the creation, development and improvement of telecommunication equipment and networks in developing countries by every means at its disposal, especially its participation in the appropriate programmes of the United Nations;
- 20 *f)* promote the adoption of measures for ensuring the safety of life through the cooperation of telecommunication services;
- 21 *g)* undertake studies, make regulations, adopt resolutions, formulate recommendations and opinions, and collect and publish information concerning telecommunication matters.

ARTICLE 5

Structure of the Union

- 22 The Union shall comprise the following organs:
 - 1. the Plenipotentiary Conference, which is the supreme organ of the Union;
- 23 2. administrative conferences;
- 24 3. the Administrative Council;
- 25 4. the permanent organs of the Union, which are:
 - a)* the General Secretariat;
 - 26 *b)* the International Frequency Registration Board (I.F.R.B.);
 - 27 *c)* the International Radio Consultative Committee (C.C.I.R.);
 - 28 *d)* the International Telegraph and Telephone Consultative Committee (C.C.I.T.T.).

ARTICLE 6

Plenipotentiary Conference

- 29 1. The Plenipotentiary Conference shall be composed of delegations representing Members. It shall be convened at regular intervals and normally every five years.

ARTICLE 10

International Frequency Registration Board

- 63 1. The International Frequency Registration Board (I.F.R.B.) shall consist of five independent members, elected by the Plenipotentiary Conference. These members shall be elected from the candidates sponsored by countries, Members of the Union, in such a way as to ensure equitable distribution amongst the regions of the world. Each Member of the Union may propose only one candidate who shall be a national of its country.
- 64 2. The members of the International Frequency Registration Board shall serve, not as representing their respective countries, or of a region, but as custodians of an international public trust.
- 65 3. The essential duties of the International Frequency Registration Board shall be:
- a) to effect an orderly recording of frequency assignments made by the different countries so as to establish, in accordance with the procedure provided for in the Radio Regulations and in accordance with any decision which may be taken by competent conferences of the Union, the date, purpose and technical characteristics of each of these assignments, with a view to ensuring formal international recognition thereof;
 - 66 b) to effect, in the same conditions and for the same purpose, an orderly recording of the positions assigned by countries to geostationary satellites;
 - 67 c) to furnish advice to Members with a view to the operation of the maximum practicable number of radio channels in those portions of the spectrum where harmful interference may occur, and with a view to the equitable, effective and economical use of the geostationary satellite orbit;
 - 68 d) to perform any additional duties, concerned with the assignment and utilization of frequencies and with the utilization of the geostationary satellite orbit, in accordance with the procedures provided for in the Radio Regulations, and as prescribed by a competent

conflict with the terms of this Convention or of the Administrative Regulations annexed thereto, so far as concerns the harmful interference which their operation might be likely to cause to the radio services of other countries.

ARTICLE 32

Regional Conferences, Arrangements and Organizations

- 129 Members reserve the right to convene regional conferences, to make regional arrangements and to form regional organizations, for the purpose of settling telecommunication questions which are susceptible of being treated on a regional basis. Such arrangements shall not be in conflict with this Convention.

CHAPTER III

Special Provisions for Radio

ARTICLE 33

Rational Use of the Radio Frequency Spectrum and of the Geostationary Satellite Orbit

- 130 1. Members shall endeavour to limit the number of frequencies and the spectrum space used to the minimum essential to provide in a satisfactory manner the necessary services. To that end they shall endeavour to apply the latest technical advances as soon as possible.
- 131 2. In using frequency bands for space radio services Members shall bear in mind that radio frequencies and the geostationary satellite orbit are limited natural resources, that they must be used efficiently and economically so

that countries or groups of countries may have equitable access to both in conformity with the provisions of the Radio Regulations according to their needs and the technical facilities at their disposal.

ARTICLE 34

Intercommunication

- 132 1. Stations performing radiocommunication in the mobile service shall be bound, within the limits of their normal employment, to exchange radio-communications reciprocally without distinction as to the radio system adopted by them.
- 133 2. Nevertheless, in order not to impede scientific progress, the provisions of 132 shall not prevent the use of a radio system incapable of communicating with other systems, provided that such incapacity is due to the specific nature of such system and is not the result of devices adopted solely with the object of preventing intercommunication.
- 134 3. Notwithstanding the provisions of 132, a station may be assigned to a restricted international service of telecommunication, determined by the purpose of such service, or by other circumstances independent of the system used.

ARTICLE 35

Harmful Interference

- 135 1. All stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference to the radio services or communications of other Members or of recognized private operating agencies, or of other duly authorized operating agencies which carry on radio service, and which operate in accordance with the provisions of the Radio Regulations.
- 136 2. Each Member undertakes to require the private operating agencies which it recognizes and the other operating agencies duly authorized for this purpose, to observe the provisions of 135.

RADIO REGULATIONS

Extracts consist of only those pages containing material directly affecting considerations with RR1-1 regard to the use of direct broadcasting satellites.

CHAPTER I

Terminology

ARTICLE 1

Terms and Definitions

Preamble

- 1 For the purposes of these Regulations, the following terms shall have the meanings defined below. These terms and definitions do not, however, necessarily apply for other purposes.

Section I. General Terms

- 2 *Telecommunication* : Any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, visual or other electromagnetic systems.
- 3 *General Network of Telecommunication Channels*: The whole of the existing telecommunication channels open to public correspondence, with the exception of the telecommunication channels of the mobile service, of the maritime mobile-satellite service and of the fixed-satellite service when used for connection between one or more earth stations and a satellite used for the maritime mobile-satellite service.
- 4 *Simplex Operation* : Operating method in which transmission is made possible alternately in each direction, for example, by means of manual control.¹
- 5 *Duplex Operation* : Operating method in which transmission is possible simultaneously in both directions.¹
- 6 *Semi-duplex Operation* : Operating method which is simplex at one end of the circuit and duplex at the other.¹

4.1
5.1
6.1 ¹ In general, duplex and semi-duplex operation require two frequencies in radio-communication; simplex may use either one or two.

its route over the radiocommunication channels of the maritime mobile service or the maritime mobile-satellite service.

- 15 *Telemetering* : The use of telecommunication for automatically indicating or recording measurements at a distance from the measuring instrument.
- 16 *Radiotelemetering* : Telemetering by means of radio waves.
- 17 *Telephony* : A system of telecommunication set up for the transmission of speech or, in some cases, other sounds.
- 18 *Radiotelephone Call* : A telephone call, originating in or intended for a mobile station or a mobile earth station in the maritime mobile-satellite service, transmitted on all or part of its route over the radiocommunication channels of a mobile service or of the maritime mobile-satellite service.
- Mar2
- 19 *Television* : A system of telecommunication for the transmission of transient images of fixed or moving objects.
- 20 *Facsimile* : A system of telecommunication for the transmission of fixed images, with or without half-tones, with a view to their reproduction in a permanent form.

Section II. Radio Systems, Services and Stations

- 21 *Station* : One or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying on a radiocommunication service. Each station shall be classified by the service in which it operates permanently or temporarily.
- 21A *Space Station*
- Spa2 A station located on an object which is beyond, is intended to go beyond, or has been beyond, the major portion of the Earth's atmosphere.

RR1-4

21B *Earth Station*
Spa2

A station located either on the Earth's surface or within the major portion of the Earth's atmosphere intended for communication:

- with one or more space stations; or
- with one or more stations of the same kind by means of one or more passive satellites or other objects in space.

21C *Space Radiocommunication*
Spa2

Any radiocommunication involving the use of one or more space stations or the use of one or more passive satellites or other objects in space.

21D *Terrestrial Radiocommunication*¹
Spa2

Any radiocommunication other than space radiocommunication or radio astronomy.

21E *Terrestrial Station*²
Spa2

A station effecting terrestrial radiocommunication.

22 *Fixed Service*: A service of radiocommunication between specified fixed points.

23 *Fixed Station*: A station in the fixed service.

24 *Aeronautical Fixed Service*: A fixed service intended for the transmission of information relating to air navigation, preparation for and safety of flight.

25 *Aeronautical Fixed Station*: A station in the aeronautical fixed service.

21D.1 ¹ In these Regulations, unless otherwise stated, any radiocommunication
Spa2 service relates to terrestrial radiocommunication.

21E.1 ² In these Regulations, unless otherwise stated, any station is a terrestrial
Spa2 station.

RR1-10

- 77 *Radiosonde*: An automatic radio transmitter in the meteorological aids service usually carried on an aircraft, free balloon, kite or parachute, and which transmits meteorological data.
- 78 *Amateur Service*: A service of self-training, intercommunication and technical investigations carried on by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.
- 79 *Amateur Station*: A station in the amateur service.
- 80 *Standard Frequency Service*: A radiocommunication service for scientific, technical and other purposes, providing the transmission of specified frequencies of stated high precision, intended for general reception.
- 81 *Standard Frequency Station*: A station in the standard frequency service.
- 82 *Time Signal Service*: A radiocommunication service for the transmission of time signals of stated high precision, intended for general reception.
- 83 *Experimental Station*: A station utilizing radio waves in experiments with a view to the development of science or technique. This definition does not include amateur stations.
- 84 *Special Service*: A radiocommunication service, not otherwise defined in this Article, carried on exclusively for specific needs of general utility, and not open to public correspondence.

84AA 84AB SUP (Spa2)

Section IIA. Space Systems, Services and Stations

84AC — 84AE SUP (Spa2)

84AF
Spa2**Space System**

Any group of co-operating earth and/or space stations employing space radiocommunication for specific purposes.

84AFA
Spa2

Satellite System

A space system using one or more artificial earth satellites.

84AFB
Spa2

Satellite Network

A satellite system or a part of a satellite system, consisting of only one satellite and the co-operating earth stations.

84AFC
Spa2

Satellite Link

A radio link between a transmitting earth station and a receiving earth station through one satellite.

A satellite link comprises one up-path and one down-path.

84AFD
Spa2

Multi-Satellite Link

A radio link between a transmitting earth station and a receiving earth station through two or more satellites, without any intermediate earth station.

A multi-satellite link comprises one up-path, one or more satellite-to-satellite paths and one down-path.

84AG
Spa2

Fixed-Satellite Service

A radiocommunication service:

- between earth stations at specified fixed points when one or more satellites are used; in some cases this service includes satellite-to-satellite links, which may also be effected in the inter-satellite service;
- for connection between one or more earth stations at specified fixed points and satellites used for a service other than the fixed-satellite service (for example, the mobile-satellite service, broadcasting-satellite service, etc.).

84AP *Broadcasting-Satellite Service*
Spa2

A radiocommunication service in which signals transmitted or retransmitted by space stations are intended for direct reception¹ by the general public.

84APA *Individual reception (in the broadcasting-satellite service)*
Spa2

The reception of emissions from a space station in the broadcasting-satellite service by simple domestic installations and in particular those possessing small antennae.

84APB *Community reception (in the broadcasting-satellite service)*
Spa2

The reception of emissions from a space station in the broadcasting-satellite service by receiving equipment, which in some cases may be complex and have antennae larger than those used for individual reception, and intended for use:

- by a group of the general public at one location; or
- through a distribution system covering a limited area.

84APC *Radiodetermination-Satellite Service*
Spa2

A radiocommunication service involving the use of radio-determination and the use of one or more space stations.

84AP.1 ¹ In the broadcasting-satellite service, the term "direct reception" shall
Spa2 encompass both individual reception and community reception.

RR5-66

MHz
470—942
 (Spa*) (Spa2)

Allocation to Services

Region 1	Region 2	Region 3
470 — 582 BROADCASTING	470 — 890 BROADCASTING	470 — 585 BROADCASTING
582 — 606 BROADCASTING RADIONAVIGATION 325 327 328 329		335 585 — 610 RADIONAVIGATION
606 — 790 BROADCASTING 329 330 330A 331 332 332A		330B 336 337 610 — 890 FIXED MOBILE BROADCASTING
790 — 890 FIXED BROADCASTING 329 331 333 334		330B 332 332A 338 339
890 — 942 FIXED BROADCASTING <i>Radiolocation</i> 329 331 333 339A	890 — 942 FIXED RADIOLOCATION 339A 340	890 — 942 FIXED MOBILE BROADCASTING <i>Radiolocation</i> 339 339A

RR5-68

- 332A Spa2** Within the frequency band 620 – 790 MHz, assignments may be made to television stations using frequency modulation in the broadcasting-satellite service subject to agreement between the administrations concerned and those having services, operating in accordance with the Table, which may be affected (see Resolutions Nos. Spa2 – 2 and Spa2 – 3). Such stations shall not produce a power flux density in excess of the value -129 dBW/m² for angles of arrival less than 20° (see Recommendation No. Spa2 – 10) within the territories of other countries without the consent of the administrations of those countries.
- 333** In Region 1, stations of the fixed service using tropospheric scatter may operate in the band 790-960 MHz subject to agreements between the administrations concerned and affected. Such operations in the band 790-860 MHz shall be on a secondary basis to those of the broadcasting service.
- 334** In Belgium, France and Monaco, the band 790-860 MHz is allocated to the broadcasting service.
- 335** In Australia, the band 470-500 MHz is allocated to the fixed and mobile services.
- 336** In China, Korea, Japan and the Philippines, the band 585-610 MHz is also allocated to the broadcasting service.
- 337** In Australia, the band 585-610 MHz is allocated on a primary basis to the broadcasting service and on a secondary basis to the radionavigation service.
- 338** In Australia, the band 610-820 MHz is allocated to the broadcasting service; the bands 820-890 MHz and 942-960 MHz are allocated to the fixed service.
- 339** In India and Pakistan, the band 610-960 MHz is allocated to the broadcasting service.
- 339A Spa** Specific portions of the frequency band 900-960 MHz may also be used, on a secondary basis, for experimental purposes in connection with space research.
- 340 Spa2** In Region 2, the frequency 915 MHz is designated for industrial, scientific and medical purposes. Emissions must be confined within the limits of ± 13 MHz of that frequency. Radiocommunication services operating within these limits must accept any harmful interference that may be experienced from the operation of industrial, scientific and medical equipment.

RR5-82

MHz
2 655-2 700
(Spa*) (Spa2)

Allocation to Services		
Region 1	Region 2	Region 3
2 655 - 2 690 FIXED 364C 364D MOBILE except aeronautical mobile BROADCASTING- SATELLITE 361B 364H 363 364 364F 364G	2 655 - 2 690 FIXED 364C 364D FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile BROADCASTING-SATELLITE 361B 364H 364E 364F 364G	
2 690 - 2 700 <div style="text-align: center;">RADIO ASTRONOMY</div> <div style="text-align: center;">233B 363 364A 364B</div>		

361 In France and the United Kingdom, the band 2 450 - 2 500 MHz is allocated
Spa2 on a primary basis to the radiolocation service and, on a secondary basis, to the fixed and mobile services.

361A In France, the band 2 500 - 2 550 MHz is also allocated, on a primary basis,
Spa2 to the radiolocation service and, on a secondary basis, to the fixed and mobile services. In Canada, the band 2 500 - 2 550 MHz is also allocated on a primary basis to the radiolocation service.

361B The use of the band 2 500 - 2 690 MHz by the broadcasting-satellite service
Spa2 is limited to domestic and regional systems for community reception and such use is subject to agreement between the administrations concerned and those having services, operating in accordance with the Table, which may be affected (see Resolutions Nos. Spa2 - 2 and Spa2 - 3). The power flux density at the Earth's surface shall not exceed the values given in Nos. 470NH-470NK.

362 In the United Kingdom, the band 2 500 - 2 600 MHz is also allocated, on a
Spa2 secondary basis, to the radiolocation service.

363 In the F. R. of Germany, the band 2 550-2 690 MHz is allocated to the fixed
Spa service; and the band 2 690-2 700 MHz is also allocated to the fixed service.

364 In Region 1, tropospheric scatter systems may operate in the band 2 550 –
Spa2 2 690 MHz, subject to agreement between the administrations concerned and those having terrestrial radiocommunication services, operating in accordance with the Table, which may be affected.

364A In Bulgaria, Cuba, Hungary, India, Israel, Kuwait, Lebanon, Morocco,
Spa2 Pakistan, the Philippines, Poland, the United Arab Republic, Roumania, Czechoslovakia, the U.S.S.R. and Yugoslavia, the band 2 690 – 2 700 MHz is also allocated to the fixed and mobile services.

364B In Algeria, Bulgaria, Hungary, Poland, the United Arab Republic, Yugoslavia,
Spa Roumania, Czechoslovakia and the U.S.S.R., tropospheric scatter systems may operate in the band 2 690–2 700 MHz under agreements concluded between administrations concerned and those having services operating in accordance with the Table, which may be affected.

364C When planning new tropospheric scatter radio-relay links in the band 2 500 –
Spa2 2 690 MHz, all possible measures shall be taken to avoid directing the antennae of these links towards the geostationary satellite orbit.

364D Administrations shall make all practicable effort to avoid developing new
Spa2 tropospheric scatter systems in the band 2 655 – 2 690 MHz.

364E The use of the bands 2 500 – 2 535 MHz and 2 655 – 2 690 MHz by the
Spa2 fixed-satellite service is limited to domestic and regional systems and such use is subject to agreement between the administrations concerned and those having services, operating in accordance with the Table, which may be affected (see Article 9A). In the direction space-to-Earth, the power flux density at the Earth's surface shall not exceed the values given in No. 470NE.

364F In Bulgaria, Iran, Portugal and the U.S.S.R., the band 2 500 – 2 690 MHz
Spa2 is allocated to the fixed service and the mobile, except aeronautical mobile, service.

364G Radio astronomy observations in the band 2 670 – 2 690 MHz are carried
Spa2 out in a number of countries under national arrangements. Administrations should bear in mind the needs of the radio astronomy service in their future planning of this band.

364H In the design of systems in the broadcasting-satellite service, administrations
Spa2 are urged to take all necessary steps to protect the radio astronomy service in the band 2 690 – 2 700 MHz.

365 SUP (Spa2) (see ADD 233B)

GHz
10.7-12.5
(Spa2)

RR5-103

Allocation to Services		
Region 1	Region 2	Region 3
10.7 – 10.95		
FIXED MOBILE		
10.95 – 11.2	10.95 – 11.2	
FIXED FIXED-SATELLITE (Space-to-Earth) (Earth-to-space) MOBILE	FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE	
11.2 – 11.45		
FIXED MOBILE		
11.45 – 11.7		
FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE		
11.7 – 12.5	11.7 – 12.2	11.7 – 12.2
	12.2 – 12.5	
FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 405BA	FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 405BB 405BC	FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 405BA

- 405BA Spa2** In the band 11.7 – 12.2 GHz in Region 3 and in the band 11.7 – 12.5 GHz in Region 1, existing and future fixed, mobile and broadcasting services shall not cause harmful interference to broadcasting-satellite stations operating in accordance with the decisions of the appropriate broadcasting frequency assignment planning conference (see Resolution No. Spa2 – 2) and this requirement shall be taken into account in the decisions of that conference.
- 405BB Spa2** Terrestrial radiocommunication services in the band 11.7 – 12.2 GHz in Region 2 shall be introduced only after the elaboration and approval of plans for the space radiocommunication services, so as to ensure compatibility between the uses that each country decides for this band.
- 405BC Spa2** The use of the band 11.7 – 12.2 GHz in Region 2 by the broadcasting-satellite and fixed-satellite services is limited to domestic systems and is subject to previous agreement between the administrations concerned and those having services, operating in accordance with the Table, which may be affected (see Article 9A and Resolution No. Spa2 – 3).
- 405BD Spa2** In Bulgaria, Cameroon, Congo (Brazzaville), the Ivory Coast, Gabon, Ghana, Hungary, Iraq, Israel, Jordan, Kuwait, Libya, Mali, Niger, Poland, Syria, the United Arab Republic, Roumania, Senegal, Czechoslovakia, Togo and the U.S.S.R., the band 12.5-12.75 GHz is also allocated to the fixed service and the mobile, except aeronautical mobile, service.
- 405BE Spa2** In Algeria, Belgium, Denmark, Spain, Ethiopia, Finland, France, Greece, Kenya, Liechtenstein, Luxembourg, Monaco, Norway, Uganda, the Netherlands, Portugal, the F.R. of Germany, Sweden, Switzerland, Tanzania and Tunisia, the band 12.5-12.75 GHz is also allocated, on a secondary basis, to the fixed service and the mobile, except aeronautical mobile, service.
- 405C Spa** In Cuba, the band 31.5-31.8 GHz is also allocated, on a secondary basis, to the fixed and mobile services.
- 406** Limited to Doppler navigation aids.
- 407 Spa2** In Albania, Bulgaria, Hungary, Poland, Roumania, Czechoslovakia and the U.S.S.R., the bands 13.25 – 13.5 GHz, 14.175 – 14.3 GHz, 15.4 – 17.7 GHz, 23.6 – 24 GHz, 24.05 – 24.25 GHz and 33.4 – 36 GHz are also allocated to the fixed and mobile services.
- 407A Spa2** The band 13.25 – 14.2 GHz may also be used, on a secondary basis, for Earth-to-space transmissions in the space research service, subject to agreement between the administrations concerned and those having services, operating in accordance with the Table, which may be affected.
- 408 Spa2** In Sweden, the bands 13.4 – 14 GHz, 15.7 – 17.7 GHz and 33.4 – 36 GHz are also allocated to the fixed and mobile services.

GHz
40-58.2
(Spa2)

RR5-113

Allocation to Services		
Region 1	Region 2	Region 3
40 - 41	FIXED-SATELLITE (Space-to-Earth)	
41 - 43	BROADCASTING-SATELLITE	
43 - 48	AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE-SATELLITE AERONAUTICAL RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION-SATELLITE	
48 - 50	(Not allocated)	
50 - 51	FIXED-SATELLITE (Earth-to-space)	
51 - 52	EARTH EXPLORATION-SATELLITE SPACE RESEARCH	
52 - 54.25	SPACE RESEARCH (Passive) 412J	
54.25 - 58.2	INTER-SATELLITE	

412J All emissions in the bands 52-54.25 GHz, 58.2-59 GHz, 64-65 GHz,
Spa2 86 - 92 GHz, 101 - 102 GHz, 130 - 140 GHz, 182 - 185 GHz and 230 - 240 GHz
are prohibited. The use of passive sensors by other services is also authorized.

RR5-114

GHz
58.2-92
(Spa2)

Allocation to Services		
Region 1	Region 2	Region 3
58.2 - 59	SPACE RESEARCH (Passive) 412J	
59 - 64	INTER-SATELLITE	
64 - 65	SPACE RESEARCH (Passive) 412J	
65 - 66	EARTH EXPLORATION-SATELLITE SPACE RESEARCH	
66 - 71	AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE-SATELLITE AERONAUTICAL RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION-SATELLITE	
71 - 84	(Not allocated)	
84 - 86	BROADCASTING-SATELLITE	
86 - 92	RADIO ASTRONOMY SPACE RESEARCH (Passive) 412J	

RR7-2

- 427** (4) However, in that part of Libya north of parallel 30° North the broadcasting service in the bands listed in No. 425 has equal rights to operate with other services in the Tropical Zone with which it shares these bands.
- 428** (5) The broadcasting service operating inside the Tropical Zone, and other services operating outside the Zone, are subject to the provisions of No. 117.

Spa2

Section IA. Broadcasting-Satellite Service

- 428A** § 2A. In devising the characteristics of a space station in the
Spa2 broadcasting-satellite service, all technical means available shall be used to reduce, to the maximum extent practicable, the radiation over the territory of other countries unless an agreement has been previously reached with such countries.

Section II. Aeronautical Mobile Service

- 429** § 3. Frequencies in any band allocated to the aeronautical mobile (R) service are reserved for communications between any aircraft and those aeronautical stations primarily concerned with the safety and regularity of flight along national or international civil air routes.
- 430** § 4. Frequencies in any band allocated to the aeronautical mobile (OR) service are reserved for communications between any aircraft and aeronautical stations other than those primarily concerned with flight along national or international civil air routes.
- 431** § 5. Frequencies in the bands allocated to the aeronautical
Aer mobile service between 2 850 and 18 030 kHz (see Article 5) shall be assigned in conformity with the provisions of Appendices 26 and 27 and the other relevant provisions of these Regulations.
- 432** § 6. Administrations shall not permit public correspondence in the frequency bands allocated exclusively to the aeronautical mobile service, unless permitted by special aeronautical regulations adopted by a Conference of the Union to which all interested Members and Associate Members of the Union are invited. Such regulations shall recognize the absolute priority of safety and control messages.

470NZ b) The limits given in No. **470NY** apply in the frequency
Spa2 bands listed in No. **470NZA** which are allocated to
transmission by space stations in the following space
radiocommunication services:

— fixed-satellite service (space-to-Earth)

— earth exploration-satellite service (space-to-Earth)

where these bands are shared with equal rights with
the fixed or mobile service:

470NZA	17.7 - 19.7	GHz
Spa2	21.2 - 22.0	GHz

470NZB (8) The limits given in Nos. **470NA**, **470NE**, **470NI**,
Spa2 **470NM**, **470NQ**, **470NU** and **470NY** may be exceeded on the territory
of any country the administration of which has so agreed.

470O - 470U **SUP** (**Spa2**)

Spa2 **Section IX. Space Radiocommunication Services**

Cessation of Emissions

470V § 24. Space stations shall be fitted with devices to ensure imme-
Spa2 diate cessation of their radio emissions by telecommand, whenever
such cessation is required under the provisions of these Regulations.

RR7-32

Spa2 *Control of Interference between Geostationary-Satellite Systems and non-synchronous inclined Orbit-Satellite Systems*

470VA § 25. Non-geostationary space stations in the fixed-satellite service shall cease or reduce to a negligible level radio emissions, and their associated earth stations shall not transmit to them whenever there is insufficient angular separation between the non-geostationary satellite and geostationary satellites and unacceptable interference ¹ to geostationary satellite space systems operating in accordance with these Regulations.

Spa2 *Station Keeping of Space Stations* ²

470VB § 26. Space stations on geostationary satellites:

Spa2

470VC — shall have the capability of maintaining their positions within ± 1 degree of the longitude of their nominal positions, but efforts should be made to achieve a capability of maintaining their positions at least within ± 0.5 degree of the longitude of their nominal positions;
Spa2

470VD — shall maintain their positions within ± 1 degree of longitude of their nominal positions irrespective of the cause of variation; but
Spa2

470VA.1 ¹ The level of unacceptable interference shall be fixed by agreement between the administrations concerned, using the relevant C.C.I.R. Recommendations as a guide.
Spa2

Spa2 ² In the case of space stations on geosynchronous satellites with orbits having an angle of inclination greater than 5 degrees the positional tolerance shall relate to the nodal point.

470VE — need not comply with No. 470VD as long as the satellite
Spa2 network to which the space station belongs does not produce an unacceptable level of interference¹ into any other satellite network whose space station complies with the limits given in No. 470VD.

Spa2 *Pointing Accuracy of Antennae on Geostationary Satellites*

470VF § 27. The pointing direction of maximum radiation of any earth-
Spa2 ward beam of antennae on geostationary satellites shall be capable of being maintained within:

10% of the half power beamwidth relative to the nominal pointing direction, or

0.5 degree relative to the nominal pointing direction,

whichever is greater. This provision applies only when such a beam is intended for less than global coverage.

In the event that the beam is not rotationally symmetrical about the axis of maximum radiation, the tolerance in any plane containing this axis shall be related to the half power beamwidth in that plane.

This accuracy shall be maintained only if it is required to avoid unacceptable interference² to other systems.

470VE.1 ¹ The level of unacceptable interference shall be fixed by agreement between
Spa2 the administrations concerned, using the relevant C.C.I.R. Recommendations as a guide.

470VF.1 ² The level of unacceptable interference shall be fixed by agreement between
Spa2 the administrations concerned, using the relevant C.C.I.R. Recommendations as a guide.

Spa2

ARTICLE 9A

**Co-ordination, Notification and Recording in the Master International
Frequency Register of Frequency Assignments¹ to Radio Astronomy
and Space Radiocommunication Stations except Stations in the
Broadcasting-Satellite Service**

**Section I. Procedure for the Advance Publication of Information
on Planned Satellite Systems**

639AA § 1. (1) An administration (or one acting on behalf of a group of
Spa2 named administrations) which intends to establish a satellite system
shall, prior to the co-ordination procedure in accordance with
No. 639AJ where applicable, send to the International Frequency
Registration Board not earlier than five years before the date of
bringing into service each satellite network of the planned system,
the information listed in Appendix 1B.

639AB (2) Any amendments to the information sent concerning a
Spa2 planned satellite system in accordance with No. 639AA shall also be
sent to the Board as soon as they become available.

639AC (3) The Board shall publish the information sent under
Spa2 Nos. 639AA and 639AB in a special section of its weekly circular and
shall also, when the weekly circular contains such information, so
advise all administrations by circular telegram.

¹ The expression *frequency assignment*, wherever it appears in this Article,
shall be understood to refer either to a new frequency assignment or to a change
in an assignment already recorded in the Master International Frequency Register
(hereinafter called *Master Register*).

The provisions of this Article apply to the
Broadcasting Satellite Service only to the extent
specified in Res Spa 2-3.

RR9A-2

639AD (4) If, after studying the information published under
Spa2 No. 639AC, any administration is of the opinion that interference, which may be unacceptable, may be caused to its existing or planned space radiocommunication services, it shall within ninety days after the date of the weekly circular publishing the information listed in Appendix 1B, send its comments to the administration concerned. A copy of these comments shall also be sent to the Board. If no such comments are received from an administration within the period mentioned above, it may be assumed that that administration has no basic objections to the planned satellite network(s) of that system on which details have been published.

639AE (5) An administration receiving comments sent in accordance
Spa2 with No. 639AD shall endeavour to resolve any difficulties that may arise.

639AF (6) In case of difficulties arising when any planned satellite
Spa2 network of a system is intended to use the geostationary satellite orbit:

- a) the administration responsible for the planned system shall first explore all possible means of meeting its requirements, taking into account the characteristics of the geostationary satellite networks of other systems, and without considering the possibility of adjustment to systems of other administrations. If no such means can be found, the administration concerned is then free to apply to other administrations concerned to solve these difficulties;

- b)* an administration receiving a request under *a)* above shall, in consultation with the requesting administration, explore all possible means of meeting the requirements of the requesting administration, for example, by relocating one or more of its own geostationary space stations involved, or by changing the emissions, frequency usage (including changes in frequency bands) or other technical or operational characteristics;
- c)* if after following the procedure outlined in *a)* and *b)* above there are unresolved difficulties, the administrations concerned shall together make every possible effort to resolve these difficulties by means of mutually acceptable adjustments, for example, to geostationary space station locations and to other characteristics of the systems involved in order to provide for the normal operation of both the planned and existing systems.

639AG (7) In their attempts to resolve the difficulties mentioned above
Spa2 administrations may seek the assistance of the Board.

639AH (8) In complying with the provisions of Nos. **639AE** to **639AG**,
Spa2 an administration responsible for a planned satellite system shall, if necessary, defer its commencement of the co-ordination procedure, or where this is not applicable, the sending of its notices to the Board, until one hundred and fifty days after the date of the weekly circular containing the information listed in Appendix 1B on the relevant satellite network. However, in respect of those administrations with whom difficulties have been resolved or who have responded favourably, the co-ordination procedure, where applicable, may be commenced prior to the expiry of the one hundred and fifty days mentioned above.

RR9A-4

639AI (9) An administration on behalf of which details of planned
Spa2 satellite networks in its system have been published, in accordance with the provisions of Nos. 639AA to 639AC, shall periodically inform the Board whether or not comments have been received and of the progress made, with other administrations, in resolving any difficulties. The Board shall publish this information in a special section of its weekly circular and shall also, when the weekly circular contains such information, so inform all administrations by circular telegram.

Section II. Co-ordination Procedures to be applied in appropriate Cases

639AJ § 2. (1) Before an administration notifies to the Board or brings
Spa2 into use any frequency assignment to a space station on a geostationary satellite or to an earth station that is to communicate with a space station on a geostationary satellite, it shall effect co-ordination of the assignment with any other administration whose assignment in the same band for a space station on a geostationary satellite or for an earth station that communicates with a space station on a geostationary satellite is recorded in the Master Register, or has been co-ordinated or is being co-ordinated under the provisions of this paragraph. For this purpose, the administration requesting co-ordination shall send to any other such administration the information listed in Appendix 1A.

639AK (2) No co-ordination under No. 639AJ is required:
Spa2

- a) when the use of a new frequency assignment will cause, to any service of another administration, an increase in the noise temperature of any space station receiver

or earth station receiver, or an increase in the equivalent satellite link noise temperature, as appropriate, not exceeding the predetermined increase of noise temperature calculated in accordance with the method given in Appendix 29; or

- b)* when an administration proposes to change the characteristics of an existing assignment in such a way as will, in respect of any service of another administration, meet the requirements of sub-paragraph *a)* above, or, where this assignment has previously been coordinated, will cause an increase in noise temperature not exceeding the value agreed during co-ordination.

639AL (3) An administration initiating the co-ordination procedure
Spa2 referred to in No. 639AJ shall at the same time send to the Board a copy of the request for co-ordination, with the information listed in Appendix 1A and the name(s) of the administration(s) with which co-ordination is sought. The Board shall publish this information in a special section of its weekly circular, together with a reference to the weekly circular in which details of the satellite system were published in accordance with Section I of this Article. When the weekly circular contains such information, the Board shall so inform all administrations by circular telegram.

639AM (4) An administration believing that it should have been
Spa2 included in the co-ordination procedure under No. 639AJ shall have the right to request that it be brought into the co-ordination procedure.

639AN§ 3. (1) Before an administration notifies to the Board or brings
Spa2 into use any frequency assignment to an earth station, whether for transmitting or receiving, in a particular band allocated with equal

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rights to space and terrestrial ¹ radiocommunication services in the frequency spectrum above 1 GHz, it shall effect co-ordination of the assignment with any other administration whose territory lies wholly or partly within the co-ordination area ² of the planned earth station. For this purpose it shall send to any other such administration a copy of a diagram drawn to an appropriate scale indicating the location of the earth station and showing the co-ordination areas ² of the earth station for the cases of transmission and reception by the earth station and the data on which they are based, including all pertinent details of the proposed frequency assignment, as listed in Appendix 1A, and an indication of the approximate date on which it is planned to begin operations.

639AO (2) An administration with which co-ordination is sought
Spa2 under No. 639AJ shall acknowledge receipt of the co-ordination data immediately by telegram. If no acknowledgement is received within thirty days after the date of the weekly circular publishing the information under No. 639AL, the administration seeking co-ordination shall dispatch a telegram requesting acknowledgement, to which the receiving administration shall reply within a further period of thirty days. Upon receipt of the co-ordination data, an administration shall, having regard to the proposed date of bringing into use of the assignment for which co-ordination was requested,

639AN.1 ¹ Appendix 28 contains criteria relating only to co-ordination between
Spa2 earth stations and stations in the fixed or mobile service. Until the C.C.I.R., in accordance with Recommendation No. Spa2-9 provides criteria relating to other terrestrial radiocommunication services, the criteria to be employed in effecting co-ordination between earth stations and terrestrial radiocommunication stations, other than those of the fixed or mobile service, shall be agreed between the administrations concerned.

639AN.2 ² Calculated, in relation to the fixed or mobile service, in accordance with
Spa2 the procedures described in Appendix 28.

promptly examine the matter with regard to interference ¹ which would be caused to the service rendered by its stations in respect of which co-ordination is sought under No. 639AJ; and shall, within ninety days from the date of the relevant weekly circular, notify the administration requesting co-ordination of its agreement. If the administration with which co-ordination is sought does not agree, it shall, within the same period, send to the administration seeking co-ordination the technical details upon which its disagreement is based, and make such suggestions as it may be able to offer with a view to a satisfactory solution of the problem. A copy of these comments shall also be sent to the Board.

639AP (3) An administration with which co-ordination is sought under
Spa2 No. 639AN shall acknowledge receipt of the co-ordination data immediately by telegram. If no acknowledgement is received within fifteen days of dispatch of the co-ordination data, the administration seeking co-ordination shall dispatch a telegram requesting acknowledgement, to which the receiving administration shall reply within a further period of fifteen days. Upon receipt of the co-ordination data an administration shall, having regard to the proposed date of bringing into use of the assignment for which co-ordination was requested, promptly examine the matter with regard both to:

- a) interference ² which would be caused to the service rendered by its terrestrial radiocommunication stations operating in accordance with the Convention and these Regulations, or to be so operated prior to the planned date of bringing the earth station assignment into service, or within the next three years, whichever is the longer; and to

639AO.1 ¹ The criteria to be employed in evaluating interference levels shall be based
Spa2 upon relevant C.C.I.R. Recommendations or, in the absence of such Recommendations, shall be agreed between the administrations concerned.

639AP.1 ² The criteria to be employed in evaluating interference levels shall be based
Spa2 upon relevant C.C.I.R. Recommendations or, in the absence of such Recommendations, shall be agreed between the administrations concerned.

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- b) interference ¹ which would be caused to reception at the earth station by the service rendered by its terrestrial radiocommunication stations operating in accordance with the Convention and these Regulations, or to be so operated prior to the planned date of bringing the earth station assignment into service, or within the next three years, whichever is the longer.

The administration with which co-ordination is sought shall then, within sixty days from dispatch of the co-ordination data, notify the administration requesting co-ordination of its agreement. If the administration with which co-ordination is sought does not agree it shall, within the same period, send to the administration seeking co-ordination a copy of a diagram drawn to an appropriate scale showing the location of its terrestrial radiocommunication stations which are or will be within the co-ordination area of the earth transmitting or receiving station, as appropriate, together with all other relevant basic characteristics, and make such suggestions as it may be able to offer with a view to a satisfactory solution of the problem.

639AQ (4) When the administration with which co-ordination is sought
Spa2 sends to the administration seeking co-ordination the information mentioned in No. 639AP, a copy thereof shall also be sent to the Board. The Board shall consider as notifications in accordance with Section I of Article 9, only that information relating to existing terrestrial radiocommunication stations or to those to be brought into use within the next three years.

639AR (5) No co-ordination under No. 639AN is required when an
Spa2 administration proposes:

639AP.1 ¹ The criteria to be employed in evaluating interference levels shall be based
Spa2 upon relevant C.C.I.R. Recommendations or, in the absence of such Recommendations, shall be agreed between the administrations concerned.

- a)* to bring into use an earth station, the co-ordination area of which does not include any of the territory of any other country;
- b)* to change the characteristics of an existing assignment in such a way as not to increase the level of interference to or from the terrestrial radiocommunication stations of other administrations;
- c)* to operate a mobile earth station. However, if the co-ordination area associated with the operation of such a mobile earth station, in a frequency band referred to in No. 639AN, includes any of the territory of another country, it shall be subject to prior agreement between the administrations concerned in order to avoid harmful interference to existing terrestrial radiocommunication stations of that country. This agreement shall apply to the characteristics of the mobile earth station(s), or to the characteristics of a typical mobile earth station, and shall apply to a specified service area; unless otherwise stipulated in the agreement, it shall apply to any mobile earth stations in the specified service area provided that the probability of harmful interference caused by them shall not be greater than that caused by the typical earth station.

639AS § 4. (1) An administration seeking co-ordination may request the
Spa2 Board to endeavour to effect co-ordination in those cases where:

- a)* an administration with which co-ordination is sought under No. 639AJ fails to acknowledge receipt, under

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No. 639AO, within sixty days after the date of the weekly circular publishing the information relating to the request for co-ordination;

- b) an administration with which co-ordination is sought under No. 639AN fails to acknowledge receipt, under No. 639AP, within thirty days of dispatch of the co-ordination data;
- c) an administration has acknowledged receipt under No. 639AO, but fails to give a decision within ninety days from the date of the relevant weekly circular;
- d) an administration has acknowledged receipt under No. 639AP, but fails to give a decision within sixty days from dispatch of the co-ordination data;
- e) there is disagreement between the administration seeking co-ordination and an administration with which co-ordination is sought as to the acceptable level of interference;
- f) co-ordination between administrations is not possible for any other reason.

In so doing, it shall furnish the Board with the necessary information to enable it to endeavour to effect such co-ordination.

639AT (2) Either the administration seeking co-ordination or an admin-
Spa2 istration with which co-ordination is sought, or the Board, may request additional information which they may require to assess the level of interference to the services concerned.

639AU (3) Where the Board receives a request under No. 639AS *a)*
Spa2 or *b)*, it shall forthwith send a telegram to the administration
concerned requesting immediate acknowledgement.

639AV (4) Where the Board receives an acknowledgement following
Spa2 its action under No. 639AU, or where the Board receives a request
under No. 639AS *c)* or *d)*, it shall forthwith send a telegram to the
administration concerned requesting an early decision in the matter.

639AW (5) Where the Board receives a request under No. 639AS *f)*,
Spa2 it shall endeavour to effect co-ordination in accordance with the
provisions of Nos. 639AJ and 639AN, as appropriate. The Board
shall also, where appropriate, act in accordance with No. 639AL.
Where the Board receives no acknowledgement to its request for
co-ordination within the periods specified in No. 639AO or 639AP,
as appropriate, it shall act in accordance with No. 639AU.

639AX (6) Where an administration fails to reply within thirty days
Spa2 of dispatch of the Board's telegram requesting an acknowledgement
sent under No. 639AU, or fails to give a decision in the matter within
thirty days of dispatch of the Board's telegram of request under
No. 639AV, it shall be deemed that the administration with which co-
ordination was sought has undertaken:

- a)* that no complaint will be made in respect of any harmful interference which may be caused to the services rendered by its space or terrestrial radiocommunication stations by the use of the assignment for which co-ordination was requested;
- b)* that its space or terrestrial radiocommunication stations will not cause harmful interference to the use

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of the assignment for which co-ordination was requested.

639AY (7) Where necessary, as part of the procedure under No. 639AS,
Spa2 the Board shall assess the level of interference. In any case, the Board shall inform the administrations concerned of the results obtained.

639AZ § 5. In the event of continuing disagreement between one
Spa2 administration seeking to effect co-ordination and one with which co-ordination has been sought, provided that the assistance of the Board has been requested, the administration seeking co-ordination may, after one hundred and fifty days from the date of the request for co-ordination, taking into consideration the provisions of No. 639BF, send its notice concerning the proposed assignment to the Board.

Section III. Notification of Frequency Assignments

639BA § 6. (1) Any frequency assignment to an earth or space station shall
Spa2 be notified to the Board:

- a) if the use of the frequency concerned is capable of causing harmful interference to any service of another administration; or
- b) if the frequency is to be used for international radio-communications; or
- c) if it is desired to obtain international recognition of the use of the frequency.

639BB (2) Similar notice shall be given for any frequency to be used for
Spa2 the reception of transmissions from earth or space stations by a particular space or earth station in each case where one or more of the conditions specified in No. 639BA are applicable.

639BC (3) Similar notice may be given for any frequency or frequency
Spa2 band to be used for reception by a particular radio astronomy station, if it is desired that such data should be included in the Master Register.

639BD (4) A notice submitted in accordance with No. **639BA** or
Spa2 **639BB** and relating to a frequency assignment to mobile earth stations in a satellite system shall include the technical characteristics either of each mobile earth station, or of a typical mobile earth station, and an indication of the service area within which these stations are to be operated.

639BE § 7. For any notification under No. **639BA**, **639BB**, **639BC**, or
Spa2 **639BD**, an individual notice for each frequency assignment shall be drawn up as prescribed in Appendix 1A, the various Sections of which specify the basic characteristics to be furnished according to the case. It is recommended that the notifying administration should also supply the additional data called for in Section A of that Appendix, together with such further data as it may consider appropriate.

639BF § 8. (1) For a frequency assignment to an earth or space station,
Spa2 each notice must reach the Board not earlier than three years before the date on which the assignment is to be brought into use. The notice must reach the Board in any case not later than ninety days ¹ before this date, except in the case of assignments in the space research service in bands allocated exclusively to this service or in shared bands in which this service is the sole primary service. In the case of such an assignment in the space research service, the notice should, whenever practicable, reach the Board before the date on which the assignment is brought into use, but it must in any case reach the Board not later than thirty days after the date it is actually brought into use.

639BF.1 ¹ The notifying administration shall take this limit into account when decid-
Spa2 ing, where appropriate, to initiate the co-ordination procedure(s).

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639BG (2) Any frequency assignment to an earth or space station, the
Spa2 notice of which reaches the Board after the applicable period specified in No. 639BF, shall, where it is to be recorded, bear a mark in the Master Register to indicate that it is not in conformity with No. 639BF.

Section IV. Procedure for the Examination of Notices and the Recording of Frequency Assignments in the Master Register

639BH § 9. Any notice which does not contain at least those basic
Spa2 characteristics specified in Appendix 1A shall be returned by the Board immediately, by airmail, to the notifying administration with the reasons therefor.

639BI § 10. Upon receipt of a complete notice, the Board shall include
Spa2 the particulars thereof, with the date of receipt, in the weekly circular referred to in No. 497, which shall contain the particulars of all such notices received since the publication of the previous circular.

639BJ § 11. The circular shall constitute the acknowledgement to the
Spa2 notifying administration of the receipt of a complete notice.

639BK § 12. Complete notices shall be considered by the Board in the
Spa2 order of their receipt. The Board shall not postpone the formulation of a finding unless it lacks sufficient data to render a decision in connection therewith; moreover, the Board shall not act upon any notice which has a technical bearing on an earlier notice still under consideration by the Board, until it has reached a finding with respect to such earlier notice.

639BL § 13. The Board shall examine each notice:
Spa2

639BM a) with respect to its conformity with the Convention,
Spa2 the Table of Frequency Allocations and the other pro-

visions of the Radio Regulations (with the exception of those relating to the co-ordination procedures and the probability of harmful interference);

639BN
Spa2

- b)* where appropriate, with respect to its conformity with the provisions of No. 639AJ, relating to the co-ordination of the use of the frequency assignment with the other administrations concerned vis-à-vis space radiocommunication stations;

639BO
Spa2

- c)* where appropriate, with respect to its conformity with the provisions of No. 639AN relating to the co-ordination of the use of the frequency assignment with the other administrations concerned vis-à-vis terrestrial radiocommunication stations;

639BP
Spa2

- d)* where appropriate, with respect to the probability of harmful interference to the service rendered by a space radiocommunication station for which a frequency assignment already recorded in the Master Register is in conformity with the provisions of No. 639BM if this frequency assignment has not in fact caused harmful interference to any frequency assignment in conformity with No. 639BM previously recorded in the Master Register;

639BQ
Spa2

- e)* where appropriate, with respect to the probability of harmful interference to the service rendered by a terrestrial radiocommunication station for which a frequency assignment already recorded in the Master Register is in conformity with the provisions of No. 501 or 570AB, as appropriate, if this frequency assignment has not, in fact, caused harmful interference to any frequency assignment in conformity with No. 639BM previously recorded in the Master Register;

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639BR f) where appropriate, with respect to the probability of
Spa2 harmful interference caused to the receiving earth station by a terrestrial radiocommunication station for which a frequency assignment already recorded in the Master Register is in conformity with No. 501 or 570AB, as appropriate.

639BS § 14. When, following an examination of a notice with respect
Spa2 to No. 639BP, the Board reaches an unfavourable finding based upon the probability of harmful interference to a recorded assignment for a space station which the Board has reason to believe may not be in regular use, the Board shall forthwith consult the administration responsible for the registered assignment. If it is established, after such consultation and on the basis of the information available, that the recorded assignment has not been in use for two years, it shall not be taken into account for the purposes of the examination in progress or any other further examination under No. 639BP conducted before the date on which the assignment is brought back into use. Before the assignment is brought back into use, it shall be subject to further co-ordination in accordance with the provisions of No. 639AJ or further examination by the Board with respect to No. 639BP, as appropriate. The date on which the assignment is brought back into use shall then be entered in the Master Register.

639BT § 15. Depending upon the findings of the Board subsequent to
Spa2 the examination prescribed in Nos. 639BM, 639BN, 639BO, 639BP, 639BQ and 639BR, as appropriate, further action shall be as follows:

639BU § 16. (1) *Finding favourable with respect to No. 639BM in cases where*
Spa2 *the provisions of Nos. 639BN and 639BO are not applicable.*

639BV (2) The assignment shall be recorded in the Master Register.
Spa2 The date of receipt by the Board of the notice shall be entered in Column 2d.

639BW § 17. (1) *Finding unfavourable with respect to No. 639BM.*

Spa2

639BX (2) Where the notice includes a specific reference to the fact
Spa2 that the station will be operated in accordance with the provisions of No. 115, and the finding is favourable with respect to Nos. 639BN, 639BO, 639BP, 639BQ and 639BR, as appropriate, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d.

639BY (3) Where the notice includes a specific reference to the fact
Spa2 that the station will be operated in accordance with the provisions of No. 115 and the finding is unfavourable with respect to No. 639BN, 639BO, 639BP, 639BQ or 639BR, as appropriate, the notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding. Should the administration insist upon reconsideration of the notice, the assignment shall be recorded in the Master Register. However, this entry shall be made only if the notifying administration informs the Board that the assignment has been in use for at least one hundred and twenty days without any complaint of harmful interference having been received. The date of receipt by the Board of the original notice shall be entered in Column 2d. The date of receipt by the Board of the advice that no complaint of harmful interference has been received shall be indicated in the Remarks Column.

639BZ (4) The period of one hundred and twenty days mentioned in
Spa2 Nos. 639BY and 639CP shall count:

- from the date when the assignment to the space radio-communication station which received an unfavourable finding is brought into use, if the assignment to the station which was the basis for the unfavourable finding is then in use;
- otherwise, from the date when the assignment to the station which was the basis for the unfavourable finding is brought into use.

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But if the assignment to the station which was the basis for the unfavourable finding has not been brought into use by the notified date, the period of one hundred and twenty days shall be counted from this date. Allowance shall, if necessary, be made for the additional period mentioned in No. 639CY.

639CA (5) Where the notice does not include a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115, it shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

639CB (6) If the notifying administration resubmits the notice unchanged, it shall be treated in accordance with the provisions of No. 639CA. If it is resubmitted with a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115, it shall be treated in accordance with the provisions of No. 639BX or 639BY, as appropriate. If it is resubmitted with modifications which, after re-examination, result in a favourable finding by the Board with respect to No. 639BM, it shall be treated as a new notice.

639CC § 18. (1) *Finding favourable with respect to No. 639BM in cases where the provisions of No. 639BN or 639BO are applicable.*

639CD (2) Where the Board finds that the co-ordination procedures mentioned in No. 639BN or 639BO have been successfully completed with all administrations whose space or terrestrial radio-communication stations may be affected, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d.

639CE (3) Where the Board finds that either of the co-ordination
Spa2 procedures mentioned in Nos. **639BN** and **639BO** has not been applied, and the notifying administration requests the Board to effect the required co-ordination, the Board shall take appropriate action and shall inform the administrations concerned of the results obtained. If the Board's efforts are successful, the notice shall be treated in accordance with No. **639CD**. If the Board's efforts are unsuccessful, the notice shall be examined by the Board with respect to the provisions of Nos. **639BP**, **639BQ** and **639BR**, as appropriate.

639CF (4) Where the Board finds that either of the co-ordination
Spa2 procedures mentioned in Nos. **639BN** and **639BO** has not been applied, and the notifying administration does not request the Board to effect the required co-ordination, the notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this action and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

639CG (5) Where the notifying administration resubmits the notice
Spa2 and the Board finds that the co-ordination procedures mentioned in Nos. **639BN** and **639BO** have been successfully completed with all administrations whose space or terrestrial radiocommunication stations may be affected, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the original notice shall be entered in Column 2d. The date of receipt by the Board of the resubmitted notice shall be entered in the Remarks Column.

639CH (6) Where the notifying administration resubmits the notice
Spa2 with a request that the Board effect the required co-ordination under No. **639AJ** or **639AN**, it shall be treated in accordance with the provisions of No. **639CE**. However, in any subsequent recording

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of the assignment, the date of receipt by the Board of the resubmitted notice shall be entered in the Remarks Column.

639CI (7) Where the notifying administration resubmits the notice and
Spa2 states it has been unsuccessful in effecting the co-ordination, the Board shall inform the administrations concerned thereof. The notice shall be examined by the Board with respect to the provisions of Nos. 639BP, 639BQ and 639BR, as appropriate. However, in any subsequent recording of the assignment, the date of receipt by the Board of the resubmitted notice shall be entered in the Remarks Column.

639CJ § 19. (1) *Finding favourable with respect to Nos. 639BM, 639BP,*
Spa2 *639BQ and 639BR, as appropriate.*

639CK (2) The assignment shall be recorded in the Master Register.
Spa2 The date of receipt by the Board of the notice shall be entered in Column 2d.

639CL (3) However, should the examination show that the level of
Spa2 the interference noise and the percentage of time during which it is likely to occur have values slightly greater than those used for assessing the probability of harmful interference (extreme propagation conditions, abnormal atmospheric humidity, etc.), a remark shall be included in the Master Register to show that there may be a slight risk of harmful interference and hence additional precautions must be taken in the use of the assignment to avoid harmful interference to assignments already recorded in the Master Register.

639CM § 20. (1) *Finding favourable with respect to No. 639BM but un-*
Spa2 *favourable with respect to No. 639BP, 639BQ or 639BR, as appropriate.*

639CN (2) The notice shall be returned immediately by airmail to the
Spa2 notifying administration with the reasons of the Board for this

finding and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

639CO (3) Should the notifying administration resubmit the notice
Spa2 with modifications which result, after re-examination, in a favourable finding by the Board with respect to Nos. **639BP**, **639BQ** and **639BR**, as appropriate, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the original notice shall be entered in Column 2d. The date of receipt by the Board of the resubmitted notice shall be indicated in the Remarks Column.

639CP (4) Should the notifying administration resubmit the notice,
Spa2 either unchanged, or with modifications which decrease the probability of harmful interference, but not sufficiently to permit the provisions of No. **639CO** to be applied, and should that administration insist upon reconsideration of the notice, but should the Board's finding remain unchanged, the assignment shall be recorded in the Master Register. However, this entry shall be made only if the notifying administration informs the Board that the assignment has been in use for at least one hundred and twenty days without any complaint of harmful interference having been received. The date of receipt by the Board of the original notice shall be entered in Column 2d. The date of receipt by the Board of the advice that no complaint of harmful interference has been received shall be indicated in the Remarks Column. The period of one hundred and twenty days shall count from the date indicated in No. **639BZ**.

639CQ § 21. (1) *Notices relating to radio astronomy stations.*

Spa2

639CR (2) A notice relating to a radio astronomy station shall not
Spa2 be examined by the Board with respect to Nos. **639BN**, **639BO**, **639BP**, **639BQ** and **639BR**. Whatever the finding, the assignment

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shall be recorded in the Master Register with a date in Column 2c. The date of receipt by the Board of the notice shall be recorded in the Remarks Column.

639CS § 22. (1) *Change in the basic characteristics of assignments already recorded in the Master Register.*

639CT (2) A notice of a change in the basic characteristics of an assignment already recorded, as specified in Appendix 1A (except the name of the station or the name of the locality in which it is situated) shall be examined by the Board according to No. 639BM, and, where appropriate, Nos. 639BN, 639BO, 639BP, 639BQ and 639BR, and the provisions of Nos. 639BU to 639CR inclusive shall apply. Where the change should be recorded, the original assignment shall be amended according to the notice.

639CU (3) However, in the case of a change in the characteristics of an assignment which is in conformity with No. 639BM, should the Board reach a favourable finding with respect to Nos. 639BN, 639BO, 639BP, 639BQ and 639BR, where appropriate, or find that the changes do not increase the probability of harmful interference to assignments already recorded, the amended assignment shall retain the original date in Column 2d. The date of receipt by the Board of the notice relating to the change shall be entered in the Remarks Column.

639CV § 23. In applying the provisions of this section, any resubmitted notice which is received by the Board more than two years after the date of its return by the Board, shall be considered as a new notice.

639CW § 24. (1) *Recording of frequency assignments notified before being brought into use.*

639CX (2) If a frequency assignment notified in advance of bringing
Spa2 into use has received a favourable finding by the Board with respect to No. 639BM and, where appropriate, Nos. 639BN, 639BO, 639BP, 639BQ and 639BR, it shall be entered provisionally in the Master Register with a special symbol in the Remarks Column indicating the provisional nature of that entry.

639CY (3) If, within thirty days after the projected date of bringing
Spa2 into use, the Board receives confirmation from the notifying administration of the date of putting into use, the special symbol shall be deleted from the Remarks Column. In the case where the Board, in the light of a request from the notifying administration received before the end of the thirty-day period, finds that exceptional circumstances warrant an extension of this period, the extension shall in no case exceed one hundred and fifty days.

639CZ (4) In the circumstances described in Nos. 639BY and 639CP,
Spa2 and as long as an assignment which received an unfavourable finding cannot be resubmitted as a consequence of the provisions of No. 639BZ, the notifying administration may ask the Board to enter the assignment provisionally in the Master Register, in which event a special symbol to denote the provisional nature of the entry shall be entered in the Remarks Column. The Board shall delete this symbol when it receives from the notifying administration, at the end of the period specified in No. 639BY or 639CP, as appropriate, the information relating to the absence of complaint of harmful interference.

639DA (5) If the Board does not receive this confirmation within the
Spa2 period referred to in No. 639CY or at the end of the period referred to in No. 639BY or 639CP, as appropriate, the entry concerned shall be cancelled. The Board shall advise the administration concerned before taking such action.

Section V. Recording of Findings in the Master Register

639DB § 25. In any case where a frequency assignment is recorded in the
Spa2 Master Register, the finding reached by the Board shall be indicated

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by a symbol in Column 13a. In addition, a remark indicating the reasons for any unfavourable finding shall be inserted in the Remarks Column.

Section VI. Categories of Frequency Assignments

639DC § 26. (1) The date in Column 2c shall be the date of putting into use notified by the administration concerned. It is given for information only.

639DD (2) If harmful interference is actually caused to the reception of any space radiocommunication station whose frequency assignment has been recorded in the Master Register as a result of a favourable finding with respect to Nos. 639BM, 639BN, 639BO, 639BP, 639BQ and 639BR, as appropriate, by the use of a frequency assignment to a space radiocommunication station subsequently recorded in the Master Register in accordance with the provisions of No. 639CP, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

639DE (3) If harmful interference to the reception of any station whose assignment is in accordance with No. 501, 570AB or 639BM, as appropriate, is actually caused by the use of a frequency assignment which is not in conformity with No. 639BM, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

Section VII. Review of Findings

639DF § 27. (1) The review of a finding by the Board may be undertaken:

— at the request of the notifying administration;

- at the request of any other administration interested in the question, but only on the grounds of actual harmful interference;
- on the initiative of the Board itself when it considers this is justified.

639DG (2) The Board, in the light of all the data at its disposal shall
Spa2 review the matter, taking into account No. **639BM** and, where appropriate, Nos. **639BN**, **639BO**, **639BP**, **639BQ** and **639BR** and shall render an appropriate finding, informing the notifying administration prior either to the promulgation of its finding or to any recording action.

639DH § 28. (1) After actual use for a reasonable period of an assignment
Spa2 which has been entered in the Master Register on the insistence of the notifying administration, following an unfavourable finding with respect to No. **639BP**, **639BQ** or **639BR**, this administration may request the Board to review the finding. Thereupon, the Board shall review the matter, having first consulted the administrations concerned.

639DI (2) If the finding of the Board is then favourable it shall enter
Spa2 in the Master Register the changes that are required so that the entry shall appear in the future as if the original finding had been favourable.

639DJ (3) If the finding with regard to the probability of harmful
Spa2 interference remains unfavourable, no change shall be made in the original entry.

Section VIII. Modification, Cancellation and Review of Entries in the Master Register

639DK § 29. (1) Where the use of a recorded assignment to a space station
Spa2 is suspended for a period of eighteen months, the notifying administration shall, within this eighteen-month period, inform the Board

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of the date on which such use was suspended and of the date on which the assignment is to be brought back into regular use.

639DL (2) Whenever it appears to the Board, whether or not as a
Spa2 result of action under No. **639DK**, that a recorded assignment to a space station has not been in regular use for more than eighteen months, the Board shall inquire of the notifying administration as to when the assignment is to be brought back into regular use.

639DM (3) If no reply is received within six months of action by the
Spa2 Board under No. **639DL**, or if the reply does not confirm that the assignment to a space station is to be brought back into regular use within this six-month limit, a mark shall be applied against the entry in the Master Register. Thereafter, the assignment shall be treated in accordance with No. **639BS** as one which has been established as having been out of regular use for two years.

639DN § 30. In case of permanent discontinuance of the use of any
Spa2 recorded frequency assignment, the notifying administration shall inform the Board within ninety days of such discontinuance, whereupon the entry shall be removed from the Master Register.

639DO § 31. Whenever it appears to the Board from the information
Spa2 available that a recorded assignment has not been brought into regular operation in accordance with the notified basic characteristics, or is not being used in accordance with those basic characteristics, the Board shall consult the notifying administration and, subject to its agreement, shall either cancel or suitably modify the entry.

639DP § 32. If, in connection with an inquiry by the Board under
Spa2 No. **639DO**, the notifying administration has failed to supply the

Board within forty-five days with the necessary or pertinent information, the Board shall make suitable entries in the Remarks Column of the Master Register to indicate the situation.

Section IX. Studies and Recommendations

639DQ § 33. (1) If it is requested by any administration, and if the circumstances appear to warrant, the Board, using such means at its disposal as are appropriate in the circumstances, shall conduct a study of cases of alleged contravention or non-observance of these Regulations, or of harmful interference.

639DR . (2) The Board shall thereupon prepare and forward to the administration concerned a report containing its findings and recommendations for the solution of the problem.

639DS § 34. In a case where, as a result of a study, the Board submits to one or more administrations suggestions or recommendations for the solution of a problem, and where no answer has been received from one or more of these administrations within a period of ninety days, the Board shall consider that the suggestions or recommendations concerned are unacceptable to the administrations which did not answer. If it was the requesting administration which failed to answer within this period, the Board shall close the study.

Section X. Miscellaneous Provisions

639DT § 35. (1) If it is requested by any administration, particularly by an administration of a country in need of special assistance, and if the circumstances appear to warrant, the Board, using such means at its disposal as are appropriate in the circumstances, shall render the following assistance:

- a) computation of the increases in noise temperatures in accordance with No. 639AK;

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- b) preparation of diagrams showing the co-ordination areas as in No. 639AN;
- c) any other assistance of a technical nature for completion of the procedures in this Article.

639DU. (2) In making a request to the Board under No. 639DT, the
Spa2 administration shall furnish the Board with the necessary information.

639DV § 36. The technical standards of the Board shall be based upon
Spa2 the relevant provisions of these Regulations and the Appendices thereto, the decisions of Administrative Conferences of the Union, as appropriate, the Recommendations of the C.C.I.R., the state of the radio art and the development of new transmission techniques.

639DW § 37. The Board shall promulgate to administrations its findings
Spa2 and reasons therefor, together with all changes made to the Master Register, through the weekly circular referred to in No. 497.

639DX § 38. In case a Member or Associate Member of the Union avails
Spa2 itself of the provisions of Article 50 of the Convention, the Board shall, upon request, make its records available for such proceedings as are prescribed in the Convention for the settlement of international disputes.

RESOLUTION No. Spa2 - 2

Relating to the Establishment of Agreements and Associated Plans for the Broadcasting-Satellite Service

The World Administrative Radio Conference for Space Telecommunications (Geneva, 1971),

considering

- a) that it is important to make the best possible use of the geostationary-satellite orbit and of the frequency bands allocated to the broadcasting-satellite service;
- b) that the great number of receiving installations using such directional antennae as could be set up for a broadcasting-satellite service may be an obstacle to changing the location of space stations in that service on the geostationary-satellite orbit, from the date of their bringing into use;
- c) that satellite broadcasts may create harmful interference over a large area of the Earth's surface;
- d) that the other services with allocations in the same band need to use the band before the broadcasting-satellite service is set up;

resolves

1. that stations in the broadcasting-satellite service shall be established and operated in accordance with agreements and associated plans adopted by World or Regional Administrative Conferences, as the case may be, in which all the administrations concerned and the administrations whose services are liable to be affected may participate;

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2. that the Administrative Council be requested to examine as soon as possible the question of a World Administrative Conference, and/or Regional Administrative Conferences as required, with a view to fixing suitable dates, places and agenda;
3. that during the period before the entry into force of such agreements and associated plans the administrations and the I.F.R.B. shall apply the procedure contained in Resolution No. Spa2-3.

RESOLUTION No. Spa2 - 3

**Relating to the Bringing into Use of Space Stations in the
Broadcasting Satellite Service, prior to the Entry into Force of
Agreements and Associated Plans for the
Broadcasting-Satellite Service**

The World Administrative Radio Conference for Space Telecommunications (Geneva, 1971),

considering

- a)* that while Resolution No. Spa2-2 has been adopted by this Conference, envisaging plans for the broadcasting-satellite service, some administrations might nevertheless feel the need to bring stations in that service into use prior to such plans being established;
- b)* that administrations should, as far as possible, avoid proliferation of space stations in the broadcasting-satellite service before such plans have been established;
- c)* that a space station in the broadcasting-satellite service may cause harmful interference to terrestrial stations operating in the same frequency band, even if the latter are outside the service area of the space station;
- d)* that the procedure specified in Article 9A of the Radio Regulations contains no provisions for co-ordination between space stations in the broadcasting-satellite service and terrestrial stations and between space stations in that service and space systems of other administrations;

resolves

1. that the following procedure shall be applied until agreements and associated plans pursuant to Resolution No. Spa2-2 enter into force:

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**Section A: Co-ordination Procedure between Space Stations in the
Broadcasting-Satellite Service and Terrestrial Stations**

2.1 Before an administration notifies to the I.F.R.B. or brings into use any frequency assignment to a space station in the broadcasting-satellite service in a frequency band where this frequency band is allocated, with equal rights, to the broadcasting-satellite service and to a terrestrial radiocommunication service, either in the same Region or sub-Region or in different Regions or sub-Regions, it shall co-ordinate the use of this assignment with any other administration whose terrestrial radiocommunication services may be affected. For this purpose, it shall inform the Board of all the technical characteristics of the station, as listed in the relevant sections of Appendix 1A to the Radio Regulations, which are necessary to assess the risk of interference to a terrestrial radiocommunication service¹.

2.2 The Board shall publish this information in a special section of its weekly circular and shall also, when the weekly circular contains such information, so advise all administrations by circular telegram.

2.3 Any administration which considers that its terrestrial radiocommunication services may be affected shall forward its comments to the administration seeking co-ordination and, in any case, to the Board. These comments must be forwarded within one hundred and twenty days from the date of the relevant I.F.R.B. weekly circular. It shall be deemed that any administration which has not forwarded comments within that period considers that its terrestrial radiocommunication services are unlikely to be affected.

¹ The technical data to be used in effecting co-ordination should be based on the most recent C.C.I.R. Recommendations as accepted by the administrations concerned under the terms of Resolution No. Spa2-6. In the absence of relevant C.C.I.R. Recommendations, the technical data to be used in effecting co-ordination shall be determined by agreement among the administrations concerned.

2.4 Any administration which has forwarded comments on the projected station shall either give its agreement or, if this is not possible, send to the administration seeking co-ordination all the data on which its comments are based as well as any such suggestions as it may be able to offer with a view to a satisfactory solution of the problem.

2.5 The administration which plans to bring into use a space station in the broadcasting-satellite service as well as any other administration which believes that its terrestrial radiocommunication services are likely to be affected by the station in question may request the assistance of the Board at any time during the co-ordination procedure.

2.6 If the assistance of the Board has been sought and there is a continuing disagreement between the administration seeking co-ordination and the administration which has forwarded its comments, the administration seeking co-ordination may, after a total period of one hundred and eighty days, from the date of the relevant I.F.R.B. weekly circular, send to the Board its notice concerning the frequency assignment in question.

**Section B: Co-ordination Procedure between Space Stations in the
Broadcasting-Satellite Service and Space Systems of
other Administrations**

3. An administration intending to bring into use a space station in the broadcasting-satellite service shall, for the purpose of co-ordination with space systems of other administrations, apply the following provisions of Article 9A of the Radio Regulations:

3.1 Nos. 639AA to 639AI inclusive.

3.2.1 No. 639AJ¹.

¹ The technical data to be used in effecting co-ordination should be based on the most recent C.C.I.R. Recommendations as accepted by the administrations concerned under the terms of Resolution No. Spa2-6. In the absence of relevant C.C.I.R. Recommendations, the technical data to be used in effecting co-ordination shall be determined by agreement among the administrations concerned.

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3.2.2 No co-ordination under paragraph 3.2.1 is required when an administration proposes to change the characteristics of an existing assignment in such a way as not to increase the probability of harmful interference to stations in the space radiocommunication service of other administrations.

3.2.3 Nos. 639AL, 639AM, 639AO, 639AS a), c), e), f), 639AT, 639AU, 639AV, 639AW, 639AX, 639AY, 639AZ.

**Section C: Notification, Examination and Recording in the
Master Register of Assignments to Space Stations in
the Broadcasting-Satellite Service dealt with under
this Resolution**

4.1 Any frequency assignment¹ to a space station in the broadcasting-satellite service shall be notified to the Board. The notifying administration shall apply for this purpose the provisions of Nos. 639BE, 639BF and 639BG of the Radio Regulations.

4.2 Notices made under paragraph 4.1 shall initially be treated in accordance with No. 639BH of the Radio Regulations.

5.1 The Board shall examine each notice with respect to:

5.2 a) its conformity with the Convention, the Table of Frequency Allocations and the other provisions of the Radio Regulations (with the exception of those relating to the co-ordination procedures and to the probability of harmful interference);

¹ The expression *frequency assignment*, wherever it appears in this Resolution, shall be understood to refer either to a new frequency assignment or to a change in an assignment already recorded in the Master International Frequency Register (hereinafter called *Master Register*).

- 5.3 *b)* its conformity, where applicable, with the provisions of paragraph 2.1 of Section A above, relating to co-ordination of the use of the frequency assignment with the other administrations concerned;
- 5.4 *c)* its conformity, where applicable, with the provisions of paragraph 3.2.1 of Section B above, relating to co-ordination of the use of the frequency assignment with the other administrations concerned;
- 5.5 *d)* where appropriate, the probability of harmful interference to the service rendered by a station in a space or terrestrial radiocommunication service for which a frequency assignment has already been recorded in the Master Register in conformity with the provisions of No. 501 or 639BM of the Radio Regulations as appropriate, if that assignment has not, in fact, caused harmful interference to the service rendered by a station for which an assignment has been previously recorded in the Master Register and which itself is in conformity with No. 501 or 639BM as appropriate.

6.1 Depending upon the findings of the Board subsequent to the examination prescribed in paragraphs 5.2, 5.3, 5.4 and 5.5, further action shall be as follows:

6.2 Where the Board reaches an unfavourable finding with respect to paragraph 5.2 the notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to a satisfactory solution of the problem.

6.3 Where the Board reaches a favourable finding with respect to paragraph 5.2, or where it reaches the same finding after resubmission of the notice, it shall examine the notice with respect to the provisions of paragraphs 5.3 and 5.4.

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6.4 Where the Board finds that the co-ordination procedures mentioned in paragraphs 5.3 and 5.4 have been successfully completed with all administrations whose services may be affected, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d of the Master Register with an entry in the Remarks column indicating that such recording does not prejudice in any way the decisions to be included in the agreements and associated plans referred to in Resolution No. Spa2–2.

6.5 Where the Board finds that the co-ordination procedures mentioned in paragraph 5.3 or 5.4 have not, as appropriate, been applied or have been unsuccessfully applied, the notice shall be returned immediately by airmail to the notifying administration with the reason for its return and with such suggestions as the Board may be able to offer with a view to a satisfactory solution of the problem.

6.6 Where the notifying administration resubmits the notice and the Board finds that the co-ordination procedures have been successfully completed with all administrations whose services may be affected, the assignment shall be treated as indicated in paragraph 6.4.

6.7 Where the notifying administration resubmits the notice and states that it has been unsuccessful in endeavouring to effect the co-ordination, the notice shall be examined by the Board with respect to paragraph 5.5.

6.8 Where the Board reaches a favourable finding with respect to paragraph 5.5, the assignment shall be recorded in the Master Register. The appropriate symbol indicating the finding by the Board shall indicate that the co-ordination procedures, as appropriate, referred to in paragraph 2.1 or 3.2.1 were not successfully completed. The date of receipt by the Board of the notice shall be entered in Column 2d of the Master Register, with the remark mentioned in paragraph 6.4.

6.9 Where the Board reaches an unfavourable finding with respect to paragraph 5.5, the notice shall be returned immediately by airmail to the notifying administration with the reasons for the Board's finding and with such suggestions as the Board may be able to offer with a view to a satisfactory solution of the problem.

6.10 If the administration resubmits the notice unchanged with the insistence that it be reconsidered, but should the Board's unfavourable finding under paragraph 5.5 remain unchanged, the assignment shall be recorded in the Master Register. However, this entry shall be made only if the notifying administration informs the Board that the assignment has been in use for at least one hundred and twenty days without any complaint of harmful interference having been received. The date of receipt by the Board of the original notice shall be entered in Column 2d of the Master Register, with the remark mentioned in paragraph 6.4. An appropriate remark shall be placed in Column 13 to indicate that the assignment is not in conformity with the provisions of paragraphs 5.2, 5.3, 5.4 or 5.5, as appropriate. In the event that the administration concerned receives no complaint of harmful interference concerning the operation of the station in question for a period of one year from the commencement of operation, the Board shall review its finding.

6.11 If harmful interference is actually caused to the reception of any space station in the broadcasting-satellite service whose frequency assignment has been recorded in the Master Register as a result of a favourable finding with respect to paragraphs 5.2, 5.3, 5.4 and 5.5 of this Resolution, as appropriate, by the use of a frequency assignment to a space station which has been subsequently recorded in the Master Register in accordance with the provisions of paragraph 6.10 of this Resolution or of No. 639CP of the Radio Regulations, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

6.12 If harmful interference is actually caused to the reception of any space radiocommunication station using an assignment recorded in the Master Register as a result of a favourable finding with respect to Nos.

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639BM, 639BN, 639BO, 639BP, 639BQ and 639BR of the Radio Regulations, as appropriate, by the use of an assignment to a space station in the broadcasting-satellite service which has been subsequently recorded in the Master Register in accordance with the provisions of paragraph 6.10 of this Resolution, the station using the latter assignment must, on receipt of advice thereof, immediately eliminate this harmful interference.

6.13 If harmful interference is actually caused to the reception of any terrestrial station using an assignment recorded in the Master Register as a result of a favourable finding with respect to No. **501** of the Radio Regulations, by the use of an assignment to a space station in the broadcasting-satellite service which has been subsequently recorded in the Master Register in accordance with the provisions of paragraph 6.10 of this Resolution, the station using the latter assignment must, on receipt of advice thereof, immediately eliminate this harmful interference.

6.14 If harmful interference to the reception of any station whose assignment is in accordance with paragraph 5.2 of this Resolution, is actually caused by the use of a frequency assignment which is not in conformity with paragraph 5.2 of this Resolution, or with No. **501, 570AB or 639BM** of the Radio Regulations, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

APPENDIX 1B

Spa2**Advance Publication Information to be furnished
for a Satellite Network**

(see Article 9A)

Section A. General Instructions

- Item 1* Information shall be provided separately for each satellite network.
- Item 2* Information to be furnished for each satellite network shall include general characteristics (Section B), and, as applicable, characteristics in the Earth-to-space direction (Section C), characteristics in the space-to-Earth direction (Section D), and characteristics for space-to-space relay (Section E).

Section B. General Characteristics to be furnished for a Satellite Network

- Item 1* Identity of the satellite network

Clearly identify the satellite network and, if applicable, identify the satellite system of which it will form a part.

- Item 2* Date of bringing into use

Indicate the date by which the satellite network is expected to be brought initially into use.

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Item 3 Administration or group of administrations submitting the advance information

Give the name of the administration or the names of the administrations in the group submitting the advance information on the satellite network and the postal and telegraphic addresses of the administration(s) to which any communication should be sent.

Item 4 Orbital information relating to the space station(s)

a) In the case of a space station aboard a geostationary satellite, give the planned nominal geographical longitude on the geostationary satellite orbit and the planned longitudinal and inclination tolerances. Indicate also:

- 1) the arc of the geostationary satellite orbit over which the space station is visible, at a minimum angle of elevation of 10° at the Earth's surface, from its associated earth stations or service areas;
- 2) the arc of the geostationary satellite orbit within which the space station could provide the required service to its associated earth stations or service areas; and
- 3) in the event that the arc defined in paragraph 2) above is less than the arc defined in paragraph 1) above, provide the reasons therefor.

Note: The arcs specified in 1) and 2) will be indicated by the geographical longitude of the extremes of these arcs on the geostationary satellite orbit.

b) In the case of space station(s) aboard non-geostationary satellite(s), indicate the angle of inclination of the orbit, the period, the altitudes in kilometres of the apogee and perigee

of the space station(s) and the number of satellites used having the same characteristics.

Section C. Characteristics of the Satellite Network in the Earth-to-Space direction

Item 1 Earth-to-space service area(s)

Indicate the service area(s) on the Earth associated with each receiving antenna of the space station.

Item 2 Class of stations and nature of service

For each Earth-to-space service area, indicate the class of the stations in the satellite network and the nature of the service to be performed, using the symbols shown in Appendix 10.

Item 3 Frequency range

For each Earth-to-space service area, indicate the frequency range within which the carriers will be located.

Item 4 Power characteristics of the transmitted wave

- a) For each Earth-to-space service area indicate the maximum spectral power density (W/Hz) to be delivered to the antenna of the transmitting earth stations (the bandwidth over which this is averaged depends on the nature of the service concerned).
- b) If available, indicate, for each Earth-to-space service area, the actual radiation pattern (relative to isotropic) of the transmitting earth station antenna having the highest off beam equivalent isotropically radiated spectral power density.

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Item 5 Characteristics of space station receiving antennae

For each Earth-to-space service area:

- a) in the case of a space station aboard a geostationary satellite, indicate the estimated gain of the space station receiving antenna by means of gain contours plotted on a map of the Earth's surface; the isotropic gain at each contour which corresponds to a gain of 2, 4, 6, 10 and 20 dB and at 10 dB intervals thereafter as necessary, below the maximum gain, shall be indicated;
- b) in the case of a space station aboard a non-geostationary satellite, indicate the estimated isotropic gain of the space station receiving antenna in the main direction of reception and indicate the antenna radiation pattern in those directions which can intersect with the Earth's surface, taking the gain in the main direction of radiation as a reference.

Item 6 Noise temperature of the receiving space station

For each Earth-to-space service area, when other than a simple frequency changing transponder is used aboard the space station indicate the lowest total receiving system noise temperature.

Section D. Characteristics of the Satellite Network in the Space-to-Earth Direction*Item 1* Space-to-Earth service area(s)

Indicate the service area(s) on the Earth associated with each transmitting antenna of the space station.

Item 2 Class of stations and nature of service

For each space-to-Earth service area, indicate the class of the stations in the satellite network and the nature of the service to be performed, using the symbols shown in Appendix 10.

Item 3 Frequency range

For each space-to-Earth service area, indicate the frequency range within which the carriers will be located.

Item 4 Power characteristics of the transmission

For each space-to-Earth service area, indicate the maximum spectral power density (W/Hz) to be delivered to the transmitting antenna of the space station (the bandwidth over which this is averaged depends on the nature of the service concerned).

Item 5 Characteristics of space station transmitting antennae

For each space-to-Earth service area:

- a) in the case of a space station aboard a geostationary satellite, indicate the estimated gain of the space station transmitting antenna by means of gain contours plotted on a map of the Earth's surface; the isotropic gain at each contour which corresponds to a gain of 2, 4, 6, 10 and 20 dB and at 10 dB intervals thereafter as necessary, below the maximum gain, shall be indicated;
- b) in the case of space station aboard a non-geostationary satellite, indicate the estimated isotropic gain of the space station transmitting antenna in the main direction of transmission and indicate the antenna radiation pattern in those directions which can intersect with the Earth's surface, taking the gain in the main direction of transmission as a reference.

Item 6 Characteristics of receiving earth stations

- a) For each space-to-Earth service area, when other than a simple frequency changing transponder is used aboard the space station, indicate the lowest total receiving system noise temperature of the earth stations.

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For each space-to-Earth service area and for each projected usage¹, when simple frequency changing transponders are used on the space station, indicate the lowest equivalent satellite link noise temperature and the associated value of transmission gain evaluated from the output of the receiving antenna of the space station to the output of the receiving antenna of the earth station. For each projected usage, indicate also the receiving antenna(e) of the space station to which each simple frequency changing transponder will be connected.

- b) If available, indicate for each space-to-Earth service area the actual radiation pattern (relative to isotropic) of the receiving earth station antenna having the highest off beam level. When simple frequency changing transponders are used on the space station, indicate also, if available, the pattern associated with each equivalent satellite link noise temperature indicated above.

Section E. Characteristics to be furnished for Space-to-Space Relay

Where the satellite network is connected to one or more satellite networks by means of space-to-space relay, indicate the following:

- a) identity or identities of the other satellite network(s) to which the satellite network is connected;
- b) transmit and receive frequency bands;
- c) classes of emission;
- d) nominal equivalent isotropically radiated power(s) on the beam axis.

¹ A different usage will be considered to take place when different types of carriers are employed (different by virtue of maximum power spectral density), or when different types of receiving earth stations are employed (different by virtue of receiving antenna gain).

APPENDIX 1A

Spa Spa2**Notices relating to Space Radiocommunications and
Radio Astronomy Stations**

(See Article 9A)

Section A. General Instructions

1. A separate notice shall be sent to the International Frequency Registration Board for notifying:
 - each new frequency assignment;
 - any change in the characteristics of a frequency assignment recorded in the Master International Frequency Register (hereinafter called the *Master Register*);
 - any total deletion of a frequency assignment recorded in the Master Register.
2. When submitting notices under No. 639BA for earth and space transmitting assignments and under No. 639BB for space and earth receiving assignments, separate notices shall be submitted to the Board for each assignment to an earth or space station. In the case of a passive satellite system, only earth transmitting and receiving assignments shall be notified.
3. In the case of a satellite system employing multiple space stations with the same general characteristics, a separate notice shall be submitted for each space station:

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- when it is aboard a geostationary satellite; or
- when it is aboard a non-geostationary satellite except when a number of satellites have the same radio frequency characteristics and orbital characteristics (excluding the ascending node position); in the latter case, one notice covering all such space stations may be submitted.

4. The following basic information shall be shown on the notice:

- a) the serial number of the notice and the date on which the notice is sent to the Board;
- b) the name of the notifying administration;
- c) sufficient data to identify the particular satellite network in which the earth or space station will operate;
- d) whether the notice reflects:
 - 1) the first use of a frequency by a station;
 - 2) a change in the characteristics of a frequency assignment recorded in the Master Register (indicate whether the change is a replacement, addition or deletion of existing characteristics); or
 - 3) a deletion of an assignment in all of its notified characteristics;
- e) reference to the I.F.R.B. weekly circular providing the advance publication information required in accordance with No. 639AA;
- f) basic characteristics as outlined in Section B, C, D, E, or F as appropriate;
- g) any other information which the administration considers to be relevant, e.g., any factors taken into account when applying Appendix 28 for determination of the co-ordination area and also any indication that the assignment concerned would be operating

in accordance with No. 115, information concerning the use of the notified frequency if such use is restricted, or, in the case of notices pertaining to space stations, if the transmissions of the station are to be permanently switched off after a certain period.

Section B. Basic Characteristics to be furnished in Notices relating to Frequencies used by Earth Stations for Transmitting

Item 1 Assigned frequency

Indicate the assigned frequency as defined in Article 1, in kHz up to 30 000 kHz inclusive, and in MHz above 30 000 kHz (see No. 85).

Item 2 Assigned frequency band

Indicate the bandwidth of the assigned frequency band in kHz (see No. 89).

Item 3 Date of bringing into use

a) In the case of a new assignment, indicate the date (actual or foreseen, as appropriate) of bringing the frequency assignment into use.

b) Whenever the assignment is changed in any of its basic characteristics, as shown in this Section (except in the case of a change in Item 4 *a)*), the date to be given shall be that of the latest change (actual or foreseen, as appropriate).

Item 4 Identity and location of the transmitting earth station

a) Indicate the name by which the station is known or the name of the locality in which it is situated.

b) Indicate the country in which the station is located. Symbols from the Preface to the International Frequency List should be used.

c) Indicate the geographical co-ordinates (in degrees and minutes) of the transmitter site.

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Item 5 Station(s) with which communication is to be established

Identify the associated receiving space station(s) by reference to the notification thereof or in any other appropriate manner, or, in the case of a passive satellite, the identity of the satellite and the location of the associated receiving earth station(s).

Item 6 Class of station and nature of service

Indicate the class of station and nature of service performed, using the symbols shown in Appendix 10.

Item 7 Class of emission, necessary bandwidth and description of transmission

In accordance with Article 2 and Appendix 5:

- a) indicate the class of emission;
- b) ¹ indicate the carrier frequency or frequencies of the emission(s);
- c) ¹ indicate for each carrier, the class of emission, necessary bandwidth and description of transmission.

Item 8 Power characteristics of the transmission

a) ¹ Indicate for each carrier, the peak power supplied to the input of the antenna.

b) Indicate the total peak power and the maximum power density per Hz supplied to the input of the antenna averaged over the worst 4 kHz band for carriers below 15 GHz, or averaged over the worst 1 MHz band for carriers above 15 GHz.

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

Item 9 Transmitting antenna characteristics

a) Indicate the isotropic gain (dB) of the antenna in the direction of maximum radiation (see No. 100).

b) Indicate the beamwidth in degrees between the half power points (describe in detail if not symmetrical).

c) Either attach the measured radiation diagram of the antenna (taking as a reference the direction of maximum radiation) or indicate the reference radiation diagram to be used for co-ordination.

d) Indicate graphically the horizon elevation angle for each azimuth around the earth station.

e) Indicate in degrees from the horizontal plane the planned minimum operating angle of elevation of the antenna in the direction of maximum radiation.

f) Indicate in degrees, clockwise from true north, the planned range of operating azimuthal angles for the direction of maximum radiation.

*g)*¹ Indicate the type of polarization of the transmitted wave in the direction of maximum radiation; also indicate the sense in the case of circular polarization and the plane in the case of linear polarization.

h) Indicate the altitude (metres) of the antenna above mean sea level.

*Item 10*¹ Modulation characteristics

For each carrier, according to the nature of the signal modulating the carrier and the type of modulation, indicate the following characteristics:

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

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- a) carrier frequency modulated by a frequency-division multi-channel telephony baseband (FDM-FM) or by a signal that can be represented by a multichannel telephony baseband: indicate the lowest and highest frequencies of the baseband and the r.m.s. frequency deviation of the test tone as a function of baseband frequency;
- b) carrier frequency modulated by a television signal: indicate the standard of the television signal (including, where appropriate, the standard used for colour), the frequency deviation for the reference frequency of the pre-emphasis characteristic and the pre-emphasis characteristic itself. Also indicate, where applicable, the characteristics of the multiplexing of the video signal with the sound signal(s) or other signals;
- c) carrier phase-shift modulated by a pulse code modulation signal (PCM/PSK): indicate the bit rate and the number of phases;
- d) amplitude modulated carrier (including single sideband): indicate as precisely as possible the nature of the modulating signal and the kind of amplitude modulation used;
- e) for all other types of modulation, provide such particulars as may be useful for an interference study;
- f) for any type of modulation as applicable, indicate the characteristics of energy dispersal.

Item 11 Maximum hours of operation

Indicate in G.M.T. the maximum hours of operation on the frequency of each carrier.

Item 12 Co-ordination

Give the name of any administration with which the use of this frequency has been successfully co-ordinated in accordance

with Nos. 639AJ and 639AN and, if appropriate, the name of any administration with which co-ordination has been sought but not effected.

Item 13 Agreements

Give, if appropriate, the name of any administration with which agreement has been effected to exceed the limits prescribed in these Regulations, and the contents of such agreement.

Item 14 Operating administration or company

Give the name of the operating administration or company and the postal and telegraphic address of the administration to which communications should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of stations (see Article 15).

Section C. Basic Characteristics to be furnished in Notices relating to Frequencies to be received by Earth Stations

Item 1 Assigned frequency

Indicate the assigned frequency of the emission to be received, as defined in Article 1, in kHz up to 30 000 kHz inclusive, and in MHz above 30 000 kHz (see No. 85).

Item 2 Assigned frequency band

Indicate the bandwidth of the assigned frequency band in kHz (see No. 89).

Item 3 Date of bringing into use

a) In the case of a new assignment, indicate the date (actual or foreseen, as appropriate) when reception of the assigned frequency begins.

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b) Whenever the assignment is changed in any of its basic characteristics, as shown in this Section (except in the case of a change in Item 4 *a)*), the date to be given shall be that of the latest change (actual or foreseen, as appropriate).

Item 4 Identity and location of the receiving earth station

a) Indicate the name by which the receiving earth station is known or the name of the locality in which it is situated.

b) Indicate the country in which the receiving earth station is located. Symbols from the Preface to the International Frequency List should be used.

c) Indicate the geographical co-ordinates (in degrees and minutes) of the receiver site.

Item 5 Station(s) with which communication is to be established

Identify the associated transmitting space station(s) by reference to the notification thereof or in any other appropriate manner, or, in the case of a passive satellite, the identity of the satellite and the associated transmitting earth station(s).

Item 6 Class of station and nature of service

Indicate the class of station and nature of service performed, using the symbols shown in Appendix 10.

Item 7 Class of emission, necessary bandwidth and description of the transmission to be received

In accordance with Article 2 and Appendix 5:

a) indicate the class of emission of the transmission to be received;

- b)* ¹ indicate the carrier frequency or frequencies of the transmission to be received;
- c)* ¹ indicate, for each carrier to be received, the class of emission, necessary bandwidth and description of the transmission.

Item 8 Earth station receiving antenna characteristics

a) Indicate the isotropic gain (dB) of the antenna in the direction of maximum radiation (see No. 100).

b) Indicate the beamwidth in degrees between the half power points (describe in detail if not symmetrical).

c) Either attach the measured radiation diagram of the antenna (taking as a reference the direction of maximum radiation) or indicate the reference radiation diagram to be used for co-ordination.

d) Indicate graphically the horizon elevation angle for each azimuth around the earth station.

e) Indicate in degrees from the horizontal plane the planned minimum operating angle of elevation of the antenna in the direction of maximum radiation.

f) Indicate in degrees, clockwise, from True North, the planned range of operating azimuthal angles for the direction of maximum radiation.

g) Indicate the altitude (metres) of the antenna above mean sea level.

Item 9 Noise temperature

Indicate the lowest equivalent satellite link noise temperature in kelvins (see No. 103A) under "quiet sky conditions". This

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

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value shall be indicated for the nominal value of the angle of elevation when the associated transmitting station is aboard a geostationary satellite and, in other cases, for the minimum value of angle of elevation.

Item 10 Maximum hours of reception

Indicate in G.M.T. the maximum hours of reception of the frequency of each carrier.

Item 11 Co-ordination

Give the name of any administration with which the use of this frequency has been successfully co-ordinated in accordance with Nos. 639AJ and 639AN and, if appropriate, the name of any administration with which co-ordination has been sought but not effected.

Item 12 Agreements

Give also, if appropriate, the name of any administration with which agreement has been effected to exceed the limits prescribed in these Regulations, and the contents of such agreement.

Item 13 Operating administration or company

Give the name of the operating administration or company and the postal and telegraphic addresses of the administration to which communications should be sent on urgent matters regarding interference and questions referring to the technical operation of stations (see Article 15).

Section D. Basic Characteristics to be furnished in Notices relating to Frequencies used by Space Stations for Transmitting

Item 1 Assigned frequency

Indicate the assigned frequency as defined in Article 1, in kHz up to 30 000 kHz inclusive, and in MHz above 30 000 kHz (see

No. 85). At least one separate assignment notice should be made out for each antenna radiation beam.

Item 2 Assigned frequency band

Indicate the bandwidth of the assigned frequency band in kHz (see No. 89).

Item 3 Date of bringing into use

a) In the case of a new assignment, indicate the date (actual or foreseen, as appropriate) of bringing the frequency assignment into use.

b) Whenever the assignment is changed in any of its basic characteristics as shown in this Section (except in the case of a change in Item 4), the date to be given shall be that of the latest change (actual or foreseen, as appropriate).

Item 4 Identity of the space station(s)

Indicate the identity of the space station(s).

Item 5 Orbital information

a) In the case of a space station aboard a geostationary satellite indicate the nominal geographical longitude on the geostationary satellite orbit and the longitudinal and inclination tolerances. Indicate also:

- 1) the arc of the geostationary satellite orbit over which the space station is visible, at a minimum angle of elevation of 10° at the Earth's surface, from its associated earth stations or service areas; and
- 2) the arc of the geostationary satellite orbit within which the space station could provide the required service to its associated earth stations or service areas; and

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- 3) in the event that the arc defined in paragraph 2) above is less than the arc defined in paragraph 1) above, provide the reasons therefor.

Note: The arcs specified in 1) and 2) will be indicated by the geographical longitude of the extremes of these arcs on the geostationary satellite orbit.

b) In the case of space station(s) aboard non-geostationary satellite(s), indicate the angle of inclination of the orbit, the period, the altitudes in kilometres of the apogee and perigee of the space station(s) and the number of satellites used.

Item 6 Service area

Indicate the service area or areas on the Earth or the name of the locality and country in which the associated receiving station(s) is (are) located.

Item 7 Class of station and nature of service

Indicate the class of station and nature of service performed, using the symbols shown in Appendix 10.

Item 8 Class of emission, necessary bandwidth and description of transmission

In accordance with Article 2 and Appendix 5:

- a)* indicate the class of emission of the transmission;
- b)* ¹ indicate the carrier frequency or frequencies of the transmission;
- c)* ¹ indicate, for each carrier, the class of emission, necessary bandwidth and description of transmission.

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

Item 9 Power characteristics of the transmission

a) ¹ Indicate for each carrier the peak power supplied to the input of the antenna.

b) Indicate the total peak power and the maximum power density per Hz at the input of the antenna averaged over the worst 4 kHz band for carriers below 15 GHz or averaged over the worst 1 MHz band for carriers above 15 GHz.

Item 10 Space station transmitting antenna characteristics

For each service area:

a) in the case of a space station aboard a geostationary satellite, indicate the gain of the space station transmitting antenna by means of gain contours plotted on a map of the Earth's surface. The isotropic gain at each contour which corresponds to a gain of 2, 4, 6, 10 and 20 dB and at 10 dB intervals thereafter as necessary, below the maximum gain, shall be indicated;

b) in the case of a space station aboard a non-geostationary satellite, indicate the isotropic gain of the space station transmitting antenna in the main direction of radiation and indicate the antenna radiation pattern in those directions which can intersect with the Earth's surface, taking the gain in the main direction of radiation as a reference;

c) ¹ indicate the type of polarization of the antenna, the sense in the case of circular polarization, and the plane in the case of linear polarization; also indicate the worst case axial ratio in the half power beam;

d) for a geostationary satellite, indicate the pointing accuracy of the antenna.

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

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Item 11¹ Modulation characteristics

For each carrier, according to the nature of the signal modulating the carrier and the type of modulation, indicate the following characteristics:

- a) carrier frequency modulated by a frequency-division multi-channel telephony baseband (FDM-FM) or by a signal that can be represented by a multichannel telephony baseband: indicate the lowest and highest frequencies of the baseband and the r.m.s. frequency deviation of the test tone as a function of baseband frequency;
- b) carrier frequency modulated by a television signal: indicate the standard of the television signal (including, where appropriate, the standard used for colour), the frequency deviation for the reference frequency of the pre-emphasis characteristic and the pre-emphasis characteristic itself. Also indicate, where applicable, the characteristics of the multiplexing of the video signal with the sound signal(s) or other signals;
- c) carrier phase-shift-modulated by a pulse code modulation signal (PCM/PSK): indicate the bit rate and the number of phases;
- d) amplitude modulated carrier (including single sideband): indicate as precisely as possible the nature of the modulating signal and the kind of amplitude modulation used;
- e) for all other types of modulation, provide such particulars as may be useful for an interference study;
- f) for any type of modulation as applicable, indicate the characteristics of energy dispersal.

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

Item 12 Maximum hours of operation

Indicate in G.M.T. the maximum hours of operation on the frequency of each carrier.

Item 13 Co-ordination

Give the name of any administration or group of administrations with which the use of the satellite network to which the space station belongs has been successfully co-ordinated in accordance with No. 639AJ.

Item 14 Agreements

Give also, if appropriate, the name of any administration with which agreement has been effected to exceed the limits prescribed in these Regulations and the contents of such agreement.

Item 15 Operating administration or company

Give the name of the operating administration or company and the postal and telegraphic addresses of the administration to which communications should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of stations (see Article 15).

Section E. Basic Characteristics to be furnished in Notices relating to Frequencies to be received by Space Stations

Item 1 Assigned frequency

Indicate the assigned frequency of the emission to be received, as defined in Article 1, in kHz up to 30 000 kHz inclusive, and in MHz above 30 000 kHz (see No. 85). At least one separate assignment notice should be made out for each antenna radiation beam.

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Item 2 Assigned frequency band

Indicate the bandwidth of the assigned frequency band in kHz (see No. 89).

Item 3 Date of bringing into use

a) In the case of a new assignment, indicate the date (actual or foreseen, as appropriate) when reception of the assigned frequency begins.

b) Whenever the assignment is changed in any of its basic characteristics, as shown in this Section (except in the case of a change in Item 4) the date to be given shall be that of the latest change (actual or foreseen, as appropriate).

Item 4 Identity of the receiving space station(s)

Indicate the identity of the receiving space station(s).

Item 5 Orbital information

a) In the case of a space station aboard a geostationary satellite, indicate the planned nominal geographical longitude on the geostationary satellite orbit and the planned longitudinal and inclination tolerances. Indicate also:

- 1) the arc of the geostationary satellite orbit over which the space station is visible, at a minimum angle of elevation of 10° at the Earth's surface, from its associated earth stations or service areas; and
- 2) the arc of the geostationary satellite orbit within which the space station could provide the required service to its associated earth stations or service areas; and
- 3) in the event that the arc defined in paragraph 2) above is less than the arc defined in paragraph 1) above, provide the reasons therefor.

Note: The arcs specified in 1) and 2) will be indicated by the geographical longitude of the extremes of these arcs on the geostationary satellite orbit.

b) In the case of space station(s) aboard non-geostationary satellite(s), indicate the angle of inclination of the orbit, the period, the altitudes in kilometres of the apogee and perigee of the space station(s) and the number of satellites used.

Item 6 Associated transmitting earth station(s)

Identify the associated transmitting earth station(s) by reference to the notification thereof or in any other appropriate manner.

Item 7 Class of station and nature of service

Indicate the class of station and nature of service performed, using the symbols shown in Appendix 10.

Item 8 Class of emission, necessary bandwidth and description of the transmission(s) to be received

In accordance with Article 2 and Appendix 5:

- a)* indicate the class of emission of the transmission(s) to be received;
- b)* ¹ indicate the carrier frequency or frequencies of the transmission(s) to be received;
- c)* ¹ indicate, for each carrier to be received, the class of emission, necessary bandwidth and description of the transmission(s) to be received.

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

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Item 9 Space station receiving antenna characteristics

For each receiving beam:

- a)* in the case of a space station aboard a geostationary satellite, indicate the gain of the space station receiving antenna by means of gain contours plotted on a map of the Earth's surface. The isotropic gain at each contour which corresponds to a gain of 2, 4, 6, 10 and 20 dB and at 10 dB intervals thereafter as necessary, below the maximum gain, shall be indicated;
- b)* in the case of a space station aboard a non-geostationary satellite, indicate the isotropic gain of the space station receiving antenna in the main direction of radiation and indicate the antenna radiation pattern in those directions which can intersect with the Earth's surface, taking the gain in the main direction of radiation as a reference;
- c)*¹ indicate the type of polarization of the antenna, the sense in the case of circular polarization, and the plane in the case of linear polarization, also indicate the worst case axial ratio in the half power beam;
- d)* indicate, for a geostationary satellite, the pointing accuracy of the antenna.

Item 10 Noise temperature

Indicate the total receiving system noise temperature (in kelvins) at the input of the space station receiver.

Item 11 Maximum hours of reception

Indicate in G.M.T. the maximum hours of reception of the frequency of each carrier.

¹ This information need only be furnished when such information has been used as a basis to effect co-ordination with another administration.

Item 12 Co-ordination

Give the name of any administration or group of administrations with which the use of the satellite network to which the space station belongs has been successfully co-ordinated in accordance with No. 639AJ.

Item 13 Agreements

Give also, if appropriate, the name of any administration with which agreement has been effected to exceed the limits prescribed in these Regulations and the contents of such agreement.

Item 14 Operating administration or company

Give the name of the operating administration or company and the postal and telegraphic addresses of the administration to which communications should be sent on urgent matters regarding interference and questions referring to the technical operation of stations (see Article 15).

Section F. Basic Characteristics to be furnished in Notices relating to Frequencies to be received by Radio Astronomy Stations

Item 1 Observed frequency

Indicate the centre of the frequency band observed, in kHz up to 30 000 kHz inclusive, and in MHz above 30 000 kHz.

Item 2 Date of bringing into use

a) Indicate the date (actual or foreseen, as appropriate) when reception of the frequency band begins.

b) Whenever there is a change in any of the basic characteristics, as shown in this Section (except in the case of a change in Item 3 b)), the date to be given shall be that of the latest change (actual or foreseen, as appropriate).

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Item 3 Name and location of the station

a) Indicate the letters "RA".

b) Indicate the name by which the station is known or the name of the locality in which it is situated or both.

c) Indicate the country in which the station is located. Symbols from the Preface to the International Frequency List should be used.

d) Indicate the geographical co-ordinates (in degrees and minutes) of the station site.

Item 4 Bandwidth

Indicate the width of the frequency band (in kHz) observed by the station.

Item 5 Antenna characteristics

Indicate the antenna type and dimensions, effective area and angular coverage in azimuth and elevation.

Item 6 Maximum hours of reception

Indicate in G.M.T. the maximum hours of reception of the frequency band shown in Item 4.

Item 7 Noise temperature

Indicate the over-all receiving system noise temperature (in kelvins).

Item 8 Class of observations

Indicate the class of observations to be taken on the frequency band shown in Item 4. Class A observations are those in which the sensitivity of the equipment is not a primary factor. Class B

observations are those of such a nature that they can be made only with advanced low-noise receivers using the best techniques.

Item 9 Operating administration or company

Indicate the identity of the operating administration or company and the postal and telegraphic addresses of the administration to which communication should be sent on urgent matters regarding interference and questions referring to the technical operation of stations (see Article 15).

Following this page are two forms of notice:

Section G. Form of Notice (Earth Station)

and

Section H. Form of Notice (Space Station)

MEMORANDUM OF UNDERSTANDING
ON A JOINT PROGRAM OF EXPERIMENTATION
AND EVALUATION USING AN
AERONAUTICAL SATELLITE CAPABILITY

BETWEEN

THE UNITED STATES DEPARTMENT OF TRANSPORTATION,
FEDERAL AVIATION ADMINISTRATION,
THE EUROPEAN SPACE RESEARCH ORGANISATION (ESRO),*
AND THE GOVERNMENT OF CANADA

August 2, 1974

* * *

This Memorandum of Understanding (MOU) was signed by FAA Administrator Butterfield on May 9, 1974 and by Mr. Roy Gibson, Acting Director-General of ESRO, and Ambassador Leo Gadioux for the Government of Canada on August 2, 1974. The MOU exists in English and French versions and has an Annex entitled AEROSAT Performance Specification.

Enclosed is the English version followed by an exchange of correspondence between Mr. Butterfield and Mr. Gibson concerning an understanding of the meaning and scope of the MOU.

*Superseded by the European Space Agency

MEMORANDUM OF UNDERSTANDING
ON A JOINT PROGRAMME OF EXPERIMENTATION AND
EVALUATION USING AN
AERONAUTICAL SATELLITE CAPABILITY

BETWEEN

THE UNITED STATES DEPARTMENT OF TRANSPORTATION,
FEDERAL AVIATION ADMINISTRATION (FAA),
THE EUROPEAN SPACE RESEARCH ORGANISATION (ESRO),
AND THE GOVERNMENT OF CANADA

PREAMBLE

Considering the aeronautical traffic growth with an attendant need for improved air traffic services, in particular air-ground communications is expected to require an operational aeronautical satellite capability over various areas about the mid-1980's;

Considering that the International Civil Aviation Organisation (ICAO) has recognised the potential of space technology to meet aeronautical operational needs, that the development of the Organisation's Standards and Recommended Practices requires acquisition of necessary data, and that operational satellite services must be preceded by experimentation and system evaluation;

Considering that the ICAO has encouraged states and international organisations in a position to do so to carry out an international satellite programme for experimentation and system evaluation in an operational environment;

Considering that to meet the desired objective an aeronautical satellite capability for experimentation and evaluation is required rapidly in order to permit ICAO to specify the functions and timing of an operational capability on the basis of pre-operational experience, taking into account operational and technical factors and the need to obtain maximum cost effectiveness;

Considering that in order to achieve these aims a high degree of international cooperation and participation is desirable;

Considering that effective institutional arrangements must be devised to achieve this cooperation and participation but without prejudging the arrangements ultimately required for an operational satellite capability;

Considering that the signatories to this Memorandum of Understanding do not hereby commit themselves to a follow-on operational system or to its possible characteristics, arrangements or timing;

Considering that representatives of the Governments of the United States, of Member States of the European Space Research Organisation (ESRO), of Canada, of Australia, of Japan and of aeronautical authorities of other states, have discussed such an aeronautical satellite capability and the coordination of related efforts and have agreed that any such activities should be undertaken in a unified international programme with the broadest possible international collaboration;

Considering that Member States of ESRO, the United States and Canada intend to respond in common to the ICAO 7th Air Navigation Conference's Recommendation 2/6 aiming at conducting a single international programme for experimentation and evaluation in order to facilitate the resolution of world wide problems relating to the application of satellite technology to international civil aviation needs;

Considering that ESRO, Canada and a United States company intend to establish jointly the aeronautical space segment capability for experimentation and system evaluation, that the Federal Aviation Administration (FAA) intends to make an appropriate leasing arrangement with the United States company for its share of this capability, and that ESRO, Canada and the FAA will make available their respective shares of aeronautical space segment capability to the experimentation and evaluation programmes;

The Administrator of the Federal Aviation Administration, United States Department of Transportation, the Director General of ESRO, authorised by the Council of ESRO and acting on behalf of its participating States in accordance with the provisions of the Convention for the establishment of ESRO, and the Government of Canada,

HAVE REACHED THE FOLLOWING UNDERSTANDING:

ARTICLE 1

THE JOINT AERONAUTICAL SATELLITE EVALUATION PROGRAMME

1. (a) A joint programme of experimentation and evaluation using an aeronautical satellite capability (hereinafter referred to as the "JOINT AEROSAT EVALUATION PROGRAMME") involving an aeronautical space segment capability and a coordinated programme, as defined respectively in Articles 2 and 4 below, shall be undertaken as a single international programme in order to fulfil the purposes set out in the ICAO Recommendation mentioned in the Preamble.
- (b) This Memorandum of Understanding defines the aeronautical space segment capability the use of which the signatories shall obtain and make available to the JOINT AEROSAT EVALUATION PROGRAMME for the coordinated programme in pursuance of the objectives described below. The Memorandum of Understanding also specifies the institutional arrangements for the joint conduct of the coordinated programme, which arrangements govern the rights and obligations among signatories as users of the aeronautical space segment capability.
- (c) The aeronautical space segment capability will be separately established under contractual arrangements whereby ESRO, the Government of Canada and a United States company become co-owners of this capability. The FAA, ESRO and the Government of Canada as signatories shall obtain the use of this capability with the FAA and ESRO obtaining equal portions. The FAA portion will be separately obtained by lease from the United States company, subject to Article 8, paragraph 2.
- (d) The signatories to this Memorandum of Understanding shall cooperate in the coordinated programme, along with other participants as defined in Article 12, to assure compatibility of the various elements of the JOINT AEROSAT EVALUATION PROGRAMME and to avoid unnecessary duplication of effort.

- (e) This Memorandum of Understanding also defines an added experimental capability to be included by the co-owners in the space segment at the request of the FAA.

2. The JOINT AEROSAT EVALUATION PROGRAMME shall, with due regard to the need to minimise costs, provide for an aeronautical satellite capability:

- (a) to bridge the gap in time and knowledge between the current experimental efforts, and an operational satellite capability; the initial capability must be an extension of the current experimental efforts and provide verification of system design; subsequently it must demonstrate that it will be possible to attain the quality of service expected in an operational phase for air traffic control and air carrier purposes;
- (b) to provide experience in technical, operational, economic and managerial areas required in advance of establishing a fully operational capability;
- (c) to evaluate the technical and operational performance of voice and data communications between ground and aircraft over various areas;
- (d) to permit experimental evaluation of dependent and independent surveillance capabilities, and of navigational data derived by an aircraft utilising ground and satellite transmissions;
- (e) to explore ways of using satellite capabilities to improve the cost-effectiveness of oceanic enroute services, including the possibility of combining or reducing facilities;
- (f) to carry out other experiments that may be required;
- (g) to contribute data to enable ICAO to develop its Standards and Recommended Practices for an operational capability.

ARTICLE 2ELEMENTS OF THE AERONAUTICAL
SPACE SEGMENT CAPABILITY

1. In order to achieve the objectives of the JOINT AEROSAT EVALUATION PROGRAMME, the aeronautical space segment capability (hereinafter referred to as the "AEROSAT capability") will comprise the following basic elements :

- (a) Satellites in orbit

The satellites will contain L-band transponder capability specified in Annex I attached hereto;

- (b) Satellite Control Facilities

The ground facilities of the space segment are those directly related to the control of the satellites in orbit, comprising the tracking and calibration facilities, the telemetry facilities, the command facilities and the satellite control centres and their operation. These are generally referred to as Satellite Control Facilities (SCF).

2. The above aeronautical space segment capability must be consistent with the performance specification set out in Annex I attached hereto. The number of operating satellites in orbit shall be set at a maximum of two.

ARTICLE 3

ADDED EXPERIMENTAL CAPABILITY

1. There will be an added experimental capability in each satellite in orbit, consistent with the performance specification set out in Annex II attached hereto; this capability will not be a part of the AEROSAT Capability.

2. As co-owners of the space segment, ESRO and Canada will use their best endeavours in their dealings with the United States co-owner to combine the AEROSAT capability and the added experimental capability in a hybrid satellite system using the Delta 3914 Launcher.
3. The availability of this added experimental capability will be secured from the co-owners by the FAA by way of a leasing arrangement with the United States co-owner.

ARTICLE 4

ELEMENTS OF THE COORDINATED PROGRAMME

1. The coordinated programme shall contain the following basic elements:

(a) Ground Facilities

They shall consist of the following elements:

- i. Aeronautical Satellite Communications Centres (ASCC) which shall provide the control of all telecommunications except those required for satellite control. The ASCC shall perform the basic surveillance computations as well as general coordination and data management for the aeronautical ground segment.
- ii. Aeronautical Services Earth Terminals (ASET) which shall perform transmission and reception of all telecommunications between its ASCC and the satellites.
 - (a) The number of ASETs shall be kept to a minimum consistent with the JOINT AEROSAT EVALUATION PROGRAMME objectives and initially is set at one for each side of the Atlantic Ocean.

(b) Further ASETs will be allowed to have access to the system provided that the AEROSAT Council agrees that there is a valid experimental or evaluation justification. This agreement will not be unreasonably withheld by any signatory in the AEROSAT Council.

(c) The North American ASET shall consist of two compatible transportable portions, one owned by Canada and the other owned by the United States. Each portion shall be capable of fully utilizing at any one time either, but not both, of two satellites in orbit. Full simultaneous utilization of two satellites by the North American ASET shall be accomplished by combining the ASET portions. Canada and the United States shall each have equal use of the resulting North American ASET for a period which their respective aeronautical authorities consider sufficient for a satisfactory system evaluation in the current operational environment. Canada and the United States will each select the location in their respective countries of the North American ASET. In the event that the programme is found to require augmentation of North American ASET resources, the approval of the Council for such augmentation shall permit additional ASETs or ASET Portions to the United States and Canada on an equal basis.

iii. Interfaces between the elements under i. and ii. above and the associated Air Traffic Control Centres (ATCC) and other user communications centres cooperating with the JOINT AEROSAT EVALUATION PROGRAMME

(b) Aircraft Avionics

This element includes the preparation of avionic specifications, the development, installation, testing and evaluation of the necessary aircraft avionics, for which purposes a suitable number of aircraft will be equipped as part of the coordinated programme.

(c) Test Programme

This element includes a coordinated test evaluation and demonstration programme using the aeronautical space segment capability and other elements of the coordinated programme.

2. The above coordinated programme must be consistent with the Performance Specification set out in Annex I attached hereto.

ARTICLE 5

ORGANISATIONAL STRUCTURE

1. For the execution of the JOINT AEROSAT EVALUATION PROGRAMME the international structure set forth in this Article and in Articles 6 and 7 shall be established, it being understood that this is not intended to prejudge institutional arrangements for an operational capability.
2. An AEROSAT Council shall be established as the chief body responsible to the signatories to this Memorandum of Understanding for the execution of the JOINT AEROSAT EVALUATION PROGRAMME and shall represent the range of operational and technical interests of the signatories and other participants. It shall be composed of up to six representatives designated by the FAA, up to six representatives designated by ESRO, up to three representatives designated by Canada and one representative designated by each of any other participants in the coordinated programme as defined in Article 12. Meetings of the Council restricted to representatives of the signatories may be held as necessary.
3. At a time to be decided by the AEROSAT Council, an AEROSAT Coordination Office shall be established which shall report to and receive guidance and instructions from the AEROSAT Council through the Director of the AEROSAT Coordination Office, who shall be the Secretary to the AEROSAT Council.

ARTICLE 6

THE AEROSAT COUNCIL

1. The AEROSAT Council shall meet at suitable intervals at times and places to be fixed by it. In addition, the AEROSAT Council shall meet at the request of any of the signatories.
2. All decisions and actions taken by the AEROSAT Council shall, as far as possible, have the approval of the representatives of all signatories, and, in all such matters, those representatives of each signatory shall express a single view. If, however, unanimity is not achieved, such decisions and actions must have the approval of at least the representatives of the FAA and ESRO. Representatives of other participants shall be entitled to participate in the discussions of the AEROSAT Council and in particular in those affecting their interests, subject to the provisions of Article 5, paragraph 2.
3. The AEROSAT Council shall establish its own detailed rules of procedures, subject to the provisions of this Memorandum of Understanding. The Chairmanship of the AEROSAT Council shall alternate at yearly intervals, starting with the effective date of this Memorandum of Understanding, between a nominee of the FAA and a nominee of ESRO. The first Chairman shall be provided by the FAA.
4. At least annually, the AEROSAT Council shall review the progress and scope of the JOINT AEROSAT EVALUATION PROGRAMME.
5. The AEROSAT Council shall establish such guidance for the execution of the JOINT AEROSAT EVALUATION PROGRAMME as necessary. Inter alia, the AEROSAT Council shall have the authority and responsibility to:
 - (a) coordinate the aeronautical interests of the signatories and the other participants of the JOINT AEROSAT EVALUATION PROGRAMME and represent these interests vis-a-vis the co-owners of the aeronautical space segment capability to meet the objectives as specified in Article 1;

- (b) approve any additional interface specifications for the Aeronautical Services Earth Terminal, the Aeronautical Satellite Communications Centre and the aircraft avionics;
 - (c) approve the experimental and evaluation programmes arranged and coordinated by the AEROSAT Coordination Office;
 - (d) approve any additional interface between the various elements of the JOINT AEROSAT EVALUATION PROGRAMME;
 - (e) maintain close contacts with the civil aeronautical organisations, and ensure adequate liaison with ICAO on questions of mutual interest relating to the experimentation and evaluation programme;
 - (f) approve amendments to the performance specifications set out in the Annexes attached hereto;
 - (g) propose and direct other efforts to support the coordinated programme.
6. The AEROSAT Council shall provide the procedures for the maintenance of the AEROSAT Council and the Coordination Office, including the funding thereof.

ARTICLE 7

THE AEROSAT COORDINATION OFFICE AND DIRECTOR

1. The necessary staff of the AEROSAT Coordination Office shall be provided by the signatories and other participants and shall draw upon their technical resources as far as practicable. Its size and structure shall be proposed by its Director and approved by the AEROSAT Council.

2. The AEROSAT Coordination Office shall be located with due consideration as to its relationship with the office responsible for the procurement and management of the aeronautical space segment capability.

3. The Director shall alternate at intervals determined by the AEROSAT Council between a nominee of ESRO and a nominee of FAA. The first Director shall be provided by ESRO. In discharging his responsibilities to the AEROSAT Council, the Director shall have authority and responsibility for day-to-day implementation of the coordinated programme, analysis and review of problems and submission as required of recommendations to the AEROSAT Council. His tasks shall include:

- (a) primary liaison with the office responsible for the procurement of the aeronautical space segment capability;
- (b) preparation of any additional interface specifications of the ASET, ASCC and the aircraft avionics;
- (c) definition and coordination of the experimental and evaluation programmes;
- (d) establishment of interface requirements referred to in Article 6, paragraph 5.d.;
- (e) monitoring the progress of the coordinated programme;
- (f) initiation of any special action required.

4. The salaries of the AEROSAT Coordination Office personnel will be paid by their parent organisations. Administrative and running expenses, including travel and office space, will be funded jointly by the signatories and the other participants as the AEROSAT Council shall determine.

ARTICLE 8

FINANCING AND COST

1. Financing of the coordinated programme shall be accomplished by each signatory in whatever manner it deems appropriate.
2. The costs and financial obligations undertaken by the signatories pursuant to this Memorandum of Understanding are subject to the availability of funds therefor.
3. Consistent with the guidelines established in this Memorandum of Understanding and its Annexes, every attempt will be made to minimise programme costs, including satellite production costs. The AEROSAT Council will direct and review both special and continuing analyses of cost - saving actions and alternatives.
4. None of the costs of the JOINT AEROSAT EVALUATION PROGRAMME shall be recoverable concurrently or subsequently, directly or indirectly, by charges imposed on aircraft operators.
5. None of the costs of the added experimental capability shall be recoverable concurrently or subsequently, directly or indirectly, by charges imposed on aircraft operators.

ARTICLE 9

SATELLITE DEPLOYMENT

1. Satellite capability in orbit shall be provided in accordance with priorities defined by the AEROSAT Council. The target date for the launch, over the Atlantic, of the first satellite shall be as soon

as practicable consistent with programme economies; this is expected to be by the end of 1977. A second satellite over the Atlantic is desired no later than 24 months after the first successful launch; specific timing is to be determined by programme progress and cost factors.

2. Initial orbit locations over the Atlantic Ocean for the space segment capability shall be in accordance with the Annex I attached hereto. The AEROSAT Council has authority to agree on any adjustments to these locations, including shifting some of the satellite capability to other areas outside of the Atlantic Ocean, in meeting the objectives as specified in Article 1.

ARTICLE 10

ACCESS TO AND UTILISATION OF THE AEROSAT CAPABILITY

1. ESRO and Canada shall be assured access to the AEROSAT capability without charge. FAA shall be assured access to this capability through its leasing arrangement with the United States co-owner referred to in Article 1.
2. The AEROSAT Council shall determine the utilisation of the AEROSAT capability, in accordance with the objectives of the JOINT AEROSAT EVALUATION PROGRAMME as defined in Article 1.
3. Any access to and use of the AEROSAT capability beyond the scope of the JOINT AEROSAT EVALUATION PROGRAMME shall be subject to agreement by the AEROSAT Council.

ARTICLE 11

EXCHANGE OF TEST RESULTS

The signatories and other participants shall exchange, free of charge, the test results obtained from the experimentation and evaluation programme. They shall also be communicated to ICAO.

ARTICLE 12

OTHER PARTICIPANTS IN THE COORDINATED PROGRAMME

1. The signatories to this Memorandum of Understanding recognise the desirability of broadening participation in the JOINT AEROSAT EVALUATION PROGRAMME; they will therefore consider favourably requests from other States, or their designated representatives, to participate in the coordinated programme.
2. Such requests shall be addressed to the AEROSAT Council, which shall negotiate the conditions of participation with the applicant.
3. In establishing such conditions, as it may deem necessary and appropriate, the AEROSAT Council shall take into account on the one hand, the need to assure the efficient operation of the institutional arrangements established by this Memorandum of Understanding and timely execution of the JOINT AEROSAT EVALUATION PROGRAMME, and on the other hand, the value of this programme for the applicant and the material assistance the applicant proposes to give to this programme.
4. The AEROSAT Council's consent to such participation shall specify inter alia:
 - (a) the conditions under which the other participants may utilise the AEROSAT capability; approval of such requests will not be unreasonably withheld;
 - (b) an arrangement for providing staff that may be required in the AEROSAT Coordination Office;
 - (c) the single or annual financial contribution, which may be offset by the cost to the applicant of providing manpower services or equipment.

5. The conditions for admission of new participants in the Coordinated programme shall be formalised by a supplementary agreement to this Memorandum of Understanding, which will be signed by the authorised representative of the applicant, the Administrator of the FAA, the Director General of ESRO and the representative of the Government of Canada.
6. A participant as defined in this Article may apply to have the extent of his participation in the programme modified, and the terms and conditions of that participation shall be re-negotiated between the Council and the participant.
7. The AEROSAT Council shall determine the procedures for accepting, holding and disbursing the contributions of other participants.

ARTICLE 13

TERMINATION OF MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding shall terminate on 31 December 1984 unless it is terminated at an earlier date by agreement between its signatories.

ARTICLE 14

TAXES AND CUSTOMS DUTIES

The signatories to this Memorandum of Understanding will use their best efforts to obtain any exemption from taxes on purchases, services and salaries, and from customs duties, as may be required and necessary for the execution of the JOINT AEROSAT EVALUATION PROGRAMME.

ARTICLE 15

AMENDMENTS

Amendments to this Memorandum of Understanding may be agreed between the signatories to this Memorandum. Amendments to the Annexes to this Memorandum may be made by the AEROSAT Council as provided in Article 6, paragraph 5.f.

ARTICLE 16

DISPUTES

1. Disputes arising out of the interpretation of the provisions of this Memorandum of Understanding shall first be referred to all three signatories. Should they be unable to resolve the dispute, then it shall be submitted to such arbitration as agreed upon between them.
2. Other disputes arising out of the application of provisions of this Memorandum of Understanding, shall first be referred for resolution to the Administrator of the FAA and the Director General of ESRO, after consultation with the other signatory. Should the Administrator of the FAA and the Director General of ESRO be unable to resolve the dispute, then it shall be submitted to such arbitration as shall be agreed to by the Administrator of the FAA and the Director General of ESRO.

ARTICLE 17

ANNEXES

The Annexes (Performance Specifications) to this Memorandum of Understanding form an integral part of it.

ARTICLE 18

EFFECTIVE DATE

1. This Memorandum of Understanding shall be signed by the Administrator of the FAA, the Director General of ESRO and the representative of the Government of Canada and it shall take effect upon signature by both the Administrator of the FAA and the Director General of ESRO.
2. This Memorandum of Understanding is drawn up in three originals, all three in the English and French languages, both texts being equally authoritative, and the representatives of the FAA, ESRO and Canada hereby append their signatures.

Done in ^{LONDON} ~~Neuilly-sur-Seine~~, this
 ninth day of May
 nineteen hundred and
 seventy four

For the United States Department
 of Transportation,
 Federal Aviation Administration

Alexander P. Butterfield

(The Administrator of the FAA)

Done in Neuilly-sur-Seine, this
 second day of August
 nineteen hundred and
 seventy four

For the European Space Research
 Organisation (ESRO)

R. Gibson

(The Director General of ESRO)

HH

Done in Neuilly-sur-Seine, this
 second day of August
 nineteen hundred and
 seventy four

For the Government of Canada

Piero Dadieni

JPW

(SEAL)

ORGANISATION EUROPÉENNE DE RECHERCHES SPATIALES
EUROPEAN SPACE RESEARCH ORGANISATION

DIRECTION CENTRALE
HEADQUARTERS
114, Avenue Charles de Gaulle
92522 NEUILLY SUR SEINE

TEL : 637-74-00
TELEX : 62389 ESRO NEUILLY
TG : SPACEURP NEUILLY

LE DIRECTEUR GÉNÉRAL

Neuilly, le 02 AOUT 1974

JUR/6-15-2/DRK/ET/7603

Sir,

I have the honour to refer to the discussions between representatives of the United States Department of Transportation, Federal Aviation Administration (FAA), the European Space Research Organisation (ESRO) and the Government of Canada in connection with the Memorandum of Understanding on a Joint Programme of Experimentation and Evaluation Using an Aeronautical Satellite Capability.

During these discussions the following understanding was reached :

1. Number of Satellites

- (a) Initial production of the satellites will be limited to two flight vehicles.
- (b) Financial programme and budget to be based on the possibility of a single failure.
- (c) Prime contractor will be required to submit a choice of procurement plans to handle the eventuality of a single failure. These plans will be considered by the co-owners in the light of the understanding that the cost-effectiveness of the programme is to be maximised.

.../.. 2

Mr A.P. Butterfield
Administrator
Federal Aviation Administration
Department of Transportation
Washington D.C. 20590
U.S.A.

2. Excess payload capability

At an early meeting, the AEROSAT Council will address the use of the excess payload capability referred to in paragraph 1.5 (d) of Annex I to the Memorandum of Understanding, and will provide guidelines with regard to performance and cost-effectiveness.

3. Duration of lease agreement

The FAA expressed its intention that the lease agreement with the U.S. co-owner for the L-band and VHF capabilities will cover a period of five years on each of the two satellites in orbit.

4. Cost Sharing

The only costs to be borne by FAA only, and not to be shared by all signatories, are those associated with the development and production of the VHF payload and of those items attributable to the introduction of the VHF payload in the satellite.

These costs of the VHF part of the space capability are to be recovered by the owners in the following way :

- (a) There will be an arrangement among the co-owners whereby these costs are recovered by all co-owners in proportion to their shares of ownership.
- (b) FAA will have a leasing arrangement with the U.S. co-owner to cover the whole VHF capacity.

5. Non-recovery provisions

The meaning of Article 8.4 and 8.5 is that user charges will not be used to fund any part of the JOINT AEROSAT EVALUATION PROGRAMME.

6. Availability of L-band and VHF channels

It is understood that L-band and VHF channels will be made available to any properly equipped aircraft by arrangement with the AEROSAT Council.

7. Access to the VHF capability via the European ASET

The FAA indicated a possible need for access to the VHF capability via the European ASET, in which case

the FAA would expect to bear all incremental costs for this action, and assumes that ESRO will not unreasonably reject such a request.

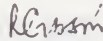
8. AEROSAT Council function

The signatories understand that the AEROSAT Council has only an advisory function with regard to procurement matters concerning the space segment.

I am sending an identical letter to the Government of Canada and if the foregoing terms correctly represent the understandings reached and you can accept them, I should appreciate receiving your reply in the affirmative. This letter and your reply, as well as the reply from the competent authorities of the Government of Canada shall constitute an understanding between FAA, ESRO and the Government of Canada on the meaning and scope of the AEROSAT Memorandum of Understanding.

I avail myself of this opportunity to extend to you the assurance of my highest consideration.

Yours faithfully,



R. GIBSON
Acting Director General

copy : His Excellency Leo Cadieux
Ambassador of Canada
Paris.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

COPY

WASHINGTON, D.C. 20590



OFFICE OF
THE ADMINISTRATOR

AUG 9 1974

Mr. Roy Gibson
Acting Director General
European Space Research Organization
114, Avenue Charles-de-Gaulle
92 Neuilly-sur-Seine, France

Dear Roy:

Thank you very much for your wire on the occasion of the ESRO and Canadian signing of the AEROSAT Memorandum of Understanding. We here are extremely pleased that the program is now launched and look forward to the early and successful launching of the satellites themselves.

I am pleased to confirm that the eight points of understanding contained in your letter of August 2 correctly reflect the discussions and agreements of the meeting of Canadian, European, and U.S. representatives in Paris on December 19-20, 1973 and the exchange of correspondence among Dr. Hocker, Administrator Huck, and myself in early March of this year. Accordingly, I accept these understandings and agree that they should constitute a mutual understanding on the meaning and scope of the Memorandum of Understanding.

Sincerely,

(signed) Alex Butterfield

Alexander P. Butterfield
Administrator

AED-2:DRIsrael:jmh:8/7/74
cc: AOA-3, AED-1, AIA-1

AEROSAT

(December 2, 1974)

ARRANGEMENT

ESTABLISH AN AERONAUTICAL SPACE SEGMENT CAPABILITY
BETWEEN
THE EUROPEAN SPACE RESEARCH ORGANIZATION,*
COMSAT GENERAL CORPORATION, AND
THE GOVERNMENT OF CANADA.

*Superseded by the European Space Agency

PREAMBLE

The European Space Research Organisation (hereinafter referred to as "ESRO"), COMSAT General Corporation, a corporation organized and existing under the laws of the State of Delaware in the United States of America (hereinafter referred to as "the Company"), and the Government of Canada (hereinafter referred to as "Canada").

CONSIDERING that the International Civil Aviation Organization has encouraged States and international organizations in a position to do so to carry out an international aeronautical satellite programme for experimentation and system evaluation in an operational environment;

CONSIDERING that to meet the desired objective an aeronautical space segment capability for experimentation and evaluation is required rapidly;

CONSIDERING that representatives of the Governments of the United States of America, of Member States of ESRO, of Canada, of Australia, of Japan and of aeronautical authorities of other States, have discussed such an aeronautical space segment capability and the coordination of related efforts;

CONSIDERING the Memorandum of Understanding between ESRO, the United States Federal Aviation Administration (hereinafter referred to as the "FAA") and Canada, which constitutes the basis for a Joint Programme of Experimentation and Evaluation Using an Aeronautical Satellite Capability (hereinafter referred to as the Joint AEROSAT Evaluation Programme) involving an aeronautical space segment capability, an added experimental capability (hereinafter referred to as "VHF capability") and a Coordinated Programme;

CONSIDERING that it has been agreed to establish separately the aeronautical space segment capability defined in Annexes I and II of the Memorandum of Understanding;

8. "Space Segment Programme Office" or "SPO" means the programme office established pursuant to Article 6 of this Arrangement.

ARTICLE 2

(Purpose)

In accordance with the terms of this Arrangement, the Parties shall establish and provide an aeronautical space segment (hereinafter referred to as the "Space Segment Programme"), having a capability sufficient to meet the requirements described in the AEROSAT Performance Specification and the Performance Specification for the VHF capacity annexed, respectively, as Annex I and Annex II to the Memorandum of Understanding, as of its effective date, including any subsequent revision of such specifications adopted by the AEROSAT Council and accepted by the SB.

ARTICLE 3

(Scope)

1. Except as otherwise provided for in this Arrangement, the Space Segment Programme shall consist of two flight spacecraft deployed and operated in a geosynchronous orbit and the associated ground support and test equipment. In order to maximise the cost effectiveness of the Space Segment Programme consistent with its objective of maintaining two flight spacecraft in geosynchronous orbit for a period of five years, the Space Segment Programme shall also include specific arrangements, to be approved by the SB, for the timely availability and launch of a third flight spacecraft to meet the contingency of a single launch failure or an in-orbit flight spacecraft failure. Each flight spacecraft shall have a design lifetime of seven years.

2. The Space Segment Programme shall include :

- (a) the design and development of the spacecraft;
- (b) the procurement and qualification testing of a prototype spacecraft;
- (c) the procurement and acceptance testing of two flight spacecraft;
- (d) the procurement of the necessary goods and services to ensure the timely availability and launch of a third flight spacecraft consistent with the contingency arrangements approved by the SB pursuant to paragraph 1 of this Article;
- (e) the procurement of ground support equipment (GSE) for spacecraft testing and handling, as required in connection with the manufacture and launch of the flight spacecraft;
- (f) the procurement of necessary satellite control facilities (SCF), including the building and commissioning of a satellite control facility at an existing ESRO facility in Europe;
- (g) the procurement of the necessary electronic test sets (ETS) to be located, as determined by the SPO, so as to ensure effective system calibration and testing;
- (h) the purchase from the United States National Aeronautics and Space Administration (NASA) of the required launch services, utilising Delta 3914 launch vehicles;
- (i) the following operational activities:
 - (i) range operations at Kennedy Space Centre;
 - (ii) telemetry, tracking and command (TT and C) support during spacecraft transfer orbit and early manoeuvres in geosynchronous orbit, utilising to the maximum feasible extent facilities available to the Parties including the ESRO TT and C network operating in the VHF frequency band;

- (iii) TT and C support for spacecraft in geosynchronous orbit;
 - (iv) post-launch assessment of in-orbit flight spacecraft performance;
 - (v) end-to-end performance tests utilising the ETS sets, and
 - (vi) space segment operation during the operating life of the flight spacecraft launched hereunder;
- (j) a management programme, hereinafter described, as necessary and appropriate to accomplish the activities to be undertaken pursuant to this Arrangement.
3. The flight spacecraft deployment plan shall be as follows :
- (a) the launch of the first flight spacecraft shall be accomplished as soon as practicable, with a target date of launch by late-1978;
 - (b) the target date for the launch of the second flight spacecraft shall be approximately 8 months after the successful launch of the first flight spacecraft;
 - (c) the availability and launch of an additional flight spacecraft shall be in accordance with the contingency arrangements approved by the SB pursuant to paragraph 1 of this Article.
4. At the request of the AEROSAT Council or any one of the Parties to this Arrangement, the scope of the Space Segment Programme, as described above, may be extended by agreement of the Parties hereto to include, in part or in total, the following :
- (a) relocation of an in-orbit flight spacecraft over a different ocean region;
 - (b) procurement of additional SCF facilities and ETS sets, as required to cover other ocean region(s);
 - (c) procurement of one or more additional flight spacecraft;
 - (d) procurement of additional launch services.

ARTICLE 4

(Organisational Structure)

For the execution of the Space Segment Programme, the organisational structure and management arrangements set forth in Articles 5 and 6 shall be established as soon as practicable and shall be maintained throughout the life of this Arrangement. The Parties agree that, to the maximum extent practicable, the professional personnel assigned to the execution of the Space Segment Programme shall be maintained in such assignments, particularly through the initial operation of the flight spacecraft.

ARTICLE 5

(Space Segment Board)

1. A Space Segment Board shall be established, which shall have the responsibility for the policy direction and guidance of the Space Segment Programme.
2. The SB shall be composed of three representatives of ESRO, three representatives of the Company, and one representative of Canada.
3. The SB shall establish its rules of procedure.
4. All decisions of the SB shall, as far as possible, be taken unanimously, with each Party's representation on the SB collectively expressing a single vote. If unanimity is not achieved, decisions of the SB shall only be taken with the concurrence of the representation of ESRO and the Company.
5. The chairmanship of the SB shall alternate at yearly intervals, starting with the effective date of this Arrangement, between a nominee of ESRO and a nominee of the Company. The first Chairman shall be provided by the Company.

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6. At least annually, the SB shall review the progress and scope of the Space Segment Programme and its estimated cost-to-completion.
7. The SB shall establish such instructions and guidance for the overall management and execution of the Space Segment Programme as necessary. Inter alia, the SB shall have the authority and responsibility to :
 - (a) approve procurement procedures and terms and conditions, consistent with Article 13 of this Arrangement, and, except as it may delegate such authority to the SPO, approve the issuance of requests for proposals (RFPs), selection of contractors, and the award of procurement contracts;
 - (b) approve the organisational structure and staffing complement of the SPO and approve the appointment of its senior members;
 - (c) approve, on a yearly basis, the budget of the Space Segment Programme;
 - (d) approve the source, type and amount of technical, administrative and operational support to be provided by ESRO, the Company and Canada and to be charged to the Programme budget;
 - (e) approve the programme for launching of spacecraft and approve the contractual arrangements with NASA for the provision of launch services;
 - (f) maintain liaison with the AEROSAT Council and ensure proper interface with the Joint AEROSAT Evaluation Programme established by the Memorandum of Understanding;
 - (g) propose, authorise and direct, as required, other efforts to carry out the Space Segment Programme;
 - (h) approve any reorientation or other change in the Space Segment Programme consistent with the terms and stated objectives of this Arrangement.

8. The Parties hereto note and recognise that the participation of ESRO in the decisions vested with the SB shall be governed by the applicable rules of the European Space Research Organisation. The Parties also note and recognise that such participation of Canada and the Company may be governed by applicable laws and regulations.

ARTICLE 6

(Space Segment Programme Office)

1. A Space Segment Programme Office shall be established, under the guidance and direction of the SB, for the execution of the Space Segment Programme.
2. The SPO shall consist of a qualified full-time staff made available by the Parties to fill the positions established within its organisational structure. The allocation among the Parties of professional posts within the SPO should approximately reflect the Parties' respective percentages specified in paragraph 1 of Article 9 of this Arrangement. The number of personnel to be assigned to the SPO shall be determined by the SB, with the expectation that the full-time strength of the SPO shall not exceed a maximum of 35 professional staff members.
3. The salaries of personnel assigned to the SPO shall be paid by their assigning Parties, together with the cost of any employee benefits. Any employee of a Party who is assigned to the SPO shall remain the employee of his assigning Party. The administrative and operating expenses, including travel expenses, of the SPO shall be borne by ESRO, the Company and Canada as normal expenses of the Programme in proportion to their respective percentages specified in paragraph 1 of Article 9 of this Arrangement.

4. If the prime contractor selected by the SB for the procurement of the spacecraft for the Space Segment Programme is a European firm, the SPO shall be located in Europe, if a United States firm, the SPO shall be located in the United States of America, within the vicinity of Washington, D.C. Until selection of the prime contractor for the procurement of the spacecraft, the SPO shall be situated at ESTEC, Noordwijk, The Netherlands.
5. The Director of the SPO shall be provided by ESRO if the SPO is located in the United States of America, and by the Company if the SPO is located in Europe. The appointment of the Director shall be subject to confirmation by the SB. Until selection of the prime contractor for the development of the spacecraft, the Director shall be provided by ESRO.
6. The Director of the SPO shall report to the SB and shall act in accordance with the policies and directives of the SB.
7. ESRO or the Company, whichever has not appointed the Director of the SPO pursuant to paragraph 5 above, shall provide a senior staff member who shall serve as Deputy Director and who shall, in addition to his normal functions, act for the Director in his absence. The appointment of the Deputy Director shall be subject to confirmation by the SB.
8. The functions of the SPO shall include:
 - (a) day-to-day coordination and direction of the Space Segment Programme;
 - (b) preparation of specifications, as required;
 - (c) preparation of RFPs, evaluation of proposals and submission of recommendations thereon to the SB;
 - (d) negotiation and administration of contracts;
 - (e) preparation of the draft budget of the Space Segment Programme;
 - (f) conduct of design reviews;
 - (g) monitoring of the qualification and acceptance testing of the spacecraft and associated facilities;

- (h) maintaining liaison with NASA in connection with its provision of launch services;
- (i) making recommendations to the SB on proposed launch schedules;
- (j) making recommendations to the SB with respect to the operational arrangements for use of the space segment capacity allocated to the Parties;
- (k) definition, coordination and monitoring of all support activities provided for in paragraph 2 of Article 7 of this Arrangement;
- (l) collaboration with the AEROSAT Coordination Office established under the Memorandum of Understanding;
- (m) maintaining liaison with the representatives to the SB or their designees;
- (n) such other functions as it may from time to time be called upon to perform by the SB.

ARTICLE 7

(Support Activities)

1. The Parties shall make available, on a timely basis, qualified individuals to meet the full-time personnel requirements of the SPO, as determined pursuant to Article 6 of this Arrangement, including full-time technical, contracting and administrative personnel.
2. In addition to their respective contributions to the full-time personnel requirements of the SPO, the Parties shall provide technical, administrative and operational support to meet the needs of the SPO, as approved by the SB.
 - (a) Technical support shall include:
 - (i) expert advice in the preparation of RFPs, evaluation of proposals, preparation of and participation in design reviews and monitoring of contractors' activities;

- (ii) technical services utilising special test equipment and facilities, as may be required by the SPO in the execution of the Space Segment Programme.
- (b) Administrative support shall include the furnishing of additional personnel by the Party in whose area the SPO is located, to assist the full-time personnel of the SPO in their performance of contracting, financial and administrative functions.
- (c) Operational support shall include:
 - (i) TT and C services during transfer orbit and geosynchronous orbit utilising to the extent feasible facilities available to the Parties, including the existing ESRO network operating in the VHF frequency band;
 - (ii) the services of qualified personnel in connection with the building, commissioning and operation of the SCF facilities and in connection with the installation of the ETS sets.
- 3. The respective costs incurred by the Parties in furnishing support facilities and services pursuant to paragraph 2 of this Article 7 shall be billed to the Space Segment Programme.
- 4. To the maximum extent practicable, the allocation among the Parties of support to be furnished pursuant to paragraph 2 of this Article 7 shall be in approximate proportion to their respective percentages specified in paragraph 1 of Article 9 of this Arrangement.

ARTICLE 8

(Ownership)

All of the property acquired pursuant to this Arrangement, to the cost of which the Parties are obligated to contribute in accordance with Article 9 of this Arrangement, shall be owned

by the Parties in undivided shares in proportion to their respective contributions to the cost of the Space Segment Programme, as specified in paragraph 1 of Article 9 of this Arrangement, provided, however, that the VHF capacity shall be owned in its entirety by the Company at such time as the Company completes its reimbursement to ESRO and Canada of their respective contributions to the cost thereof in accordance with Article 10 of this Arrangement. It is understood, however, that such ownership of the VHF capacity by the Company shall in no way alter or otherwise affect the Parties' joint administration and control of the Space Segment Programme, including the VHF capacity, in accordance with the provisions of this Arrangement.

ARTICLE 9

(Financial Commitment)

1. Subject to the provisions of paragraphs 2 and 3 of this Article 9, each Party shall contribute in the following specified percentages to the total cost, as expressed in accounting units, of the Space Segment Programme and, except for years for which the Parties concerned agree on other percentages, to the payments made in each year under this Arrangement :
 - (a) ESRO - Forty-seven (47) per cent;
 - (b) The Company - Forty-seven (47) per cent;
 - (c) Canada - Six (6) per cent.
2. The Parties will use their best efforts to maximise the cost effectiveness of the Space Segment Programme. The estimated cost-to-completion of the Space Segment Programme is 117 million accounting units, assuming that a third flight spacecraft is not made available for launch pursuant to Article 3 of this Arrangement. If at any time during the course of the Space Segment Programme it appears that this estimate will be exceeded, the Parties shall promptly specify the estimated increased total cost-to-completion of the Programme. The Parties shall contribute to such

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- specified increased cost in proportion to the respective percentages set forth in paragraph 1 of this Article 9; provided, however, that if the specified increased cost is more than twenty (20) per cent in excess of 117 million accounting units, any Party hereto may elect to withdraw from this Arrangement, subject to the provisions of paragraph 4 of this Article 9.
3. The SB may agree to provide and launch a third flight spacecraft, in which event the estimated cost of so doing shall be added to and considered a part of the estimated cost-to-completion of the Space Segment Programme for the purpose of implementing paragraph 2 of this Article 9. Canada shall not, however, be committed to contribute without its consent to the added costs resulting from a decision of the SB to provide and launch a third flight spacecraft. To the extent Canada declines to contribute to the added cost of the procurement and launch of a third flight spacecraft, ESRO and the Company shall contribute to such added cost in equal proportions.
 4. Any Party electing to withdraw from this Arrangement, as provided in paragraph 2 of this Article 9, shall promptly provide to the other Parties hereto written notice of such election. The exercise by a Party of its right to withdraw pursuant to paragraph 2 of this Article 9, shall become effective upon receipt by the other Parties of such written notice, provided, however, that the withdrawing Party shall not be relieved of its obligation to pay its specified percentage of the then current annual budget, as approved by the SB, and its percentage of the cost of any contractual commitments outstanding as of the effective date of such notice to withdraw.
 5. The commitment of the Parties to contribute to the capital costs of the Space Segment Programme shall be contingent upon the entry into force of an appropriate lease arrangement between the Company and the FAA for the furnishing of the Company's portion of the L-band capacity, together with the total VHF capacity, as provided for in Article 12 of this Arrangement. The Company shall provide the other Parties with the opportunity to review and consult on the terms and conditions of such lease arrangement, prior to its signature.

ARTICLE 10

(VHF Capacity Costs)

1. Considering that the development and production of identified items attributable to the introduction of the VHF capacity are a cost responsibility of the FAA, the Company shall, in accordance with the provisions of this Article, reimburse ESRO and Canada for their respective contributions to the costs of the Space Segment Programme which are directly attributable to the development and production of such VHF capacity.
2. Each contract placed with respect to the Space Segment Programme which relates in whole or in part to the development or production of the VHF capacity shall include an appropriate provision which will require the contractor, and any subcontractor thereof, to establish and maintain an appropriate accounting system to identify and document, insofar as practicable, those costs directly attributable to the VHF capacity and which shall require that financial information pertaining to such costs shall be made available upon request to representatives of the Parties. The total amount due for reimbursement with respect to each contract shall be equivalent, in the case of ESRO, to 47% and, in the case of Canada, to 6% of the development and production costs covered by this Article. Such amount shall be due and payable within 30 days of receipt by the SPO of a final cost accounting under each such contract.

ARTICLE 11

(Payment)

The SB shall promptly establish procedures governing payments required pursuant to this Arrangement which shall ensure that financial obligations associated with the implementation of the Space Segment Programme are met as they become due. For the purposes of determining the amount of the call up and

payment of each Party's contribution under this Arrangement in terms of national currencies, and for purposes of drawing up the budgets and accounting for expenditures, in terms of national currencies, the payment procedures shall require that the method of determining the conversion of a national currency into accounting units and vice versa, shall be consistent with the applicable Rules and Regulations of ESRO. Such payment procedures shall, to the maximum extent practicable, minimise the transfer of funds and exchanges of currencies among the Parties.

ARTICLE 12

(Allocation of Capacity)

1. The L-band telecommunications capacity of the in-orbit flight spacecraft shall be made available to the Parties in proportion to their respective percentages set forth in paragraph 1 of Article 9 of this Arrangement. The VHF telecommunications capacity of the in-orbit flight spacecraft shall be made available in its entirety to the Company.
2. As provided in Article 1, paragraph 1(b) of the Memorandum of Understanding, ESRO and Canada shall make available their respective portions of such L-band capacity to the Joint AEROSAT Evaluation Programme in order to meet the Satellite Channel Capacity requirements specified in the AEROSAT Performance Specification described in Annex I of the Memorandum of Understanding. The Company shall furnish to the FAA, under appropriate lease arrangement, the Company's portion of such L-band capacity, together with the total VHF capacity.
3. With respect to any L-band telecommunications capacity which may not be provided directly or indirectly to the Joint AEROSAT Evaluation Programme, the Parties may mutually agree on a joint utilisation of such capacity consistent with any guideline established by the AEROSAT Council.

ARTICLE 13
(Procurement)

1. Contracting for the goods and services of the Space Segment Programme shall be undertaken pursuant to invitations for competitive offers, issued by the SPO, under the direction of the SB, simultaneously in the Member States of ESRO, in the United States of America and in Canada. Contracts to be placed in the Member States of ESRO shall be signed by a duly authorised representative of ESRO on behalf of the Parties jointly. Contracts to be placed in the United States of America or Canada shall be signed by a duly authorised representative of the Company or of Canada, as the case may be, on behalf of the Parties jointly.
2. There shall be a single prime contract for the procurement of the spacecraft; a contract with NASA for the provision of launch services; one or more contracts for the provision of the SCF facilities; and a single contract for the provision of the ETS sets.
3. The prime contractor selected for procurement of the spacecraft, including its associated subcontractors, shall not be excluded from tendering for other contracts under the Programme.
4. The Parties agree that they shall not, in their own right or through any company with which they have a corporate relationship, bid, solely or jointly with others, on the procurement of the spacecraft or for other major contracts.
5. To the maximum extent feasible, the geographical distribution of work (excluding launch services) contracted out under the Space Segment Programme shall be apportioned to industry in the Member States of ESRO, in Canada and in the United States of America, in proportion to the applicable respective percentages of the Parties, as specified in paragraph 1 of Article 9 of this Arrangement. Each RFP shall state such

requirement of geographical distribution and each proposal shall demonstrate how this requirement can be met.

6. Contracting procedures and terms and conditions approved by the SB, for use by the SPO, shall be consistent with the applicable rules and regulations of ESRO and with the laws of the United States of America and of Canada, to the extent that they are applicable.

ARTICLE 14

(Intellectual Property Rights)

1. Except as the SB may otherwise decide, all contracts and subcontracts to be placed pursuant to Article 13 of this Arrangement which involve an element of experiment, research or development shall secure for each Party the right to have access to all inventions and technical data generated by or resulting from work performed pursuant to such contract, with the right, on a non-exclusive basis, to disclose, use and grant sub-licenses with respect to such inventions and technical data in the Member States of ESRO, in the United States of America and in Canada. Such rights to disclose, use and grant sub-licenses shall be exercisable by each Party on a royalty-free basis for the purpose of space research and space technology and on fair and reasonable terms for other purposes, such terms to be negotiated directly with the owner or originator of such inventions and technical data.
2. All contracts and subcontracts to be placed pursuant to Article 13 of this Arrangement which involve an element of experiment, research or development shall, except as the SB may otherwise decide, endeavour to secure for each

Party the right, on fair and reasonable terms, of disclosure and use of all background inventions and technical data directly utilised in the execution of work performed pursuant to such contracts, to the extent that such disclosure and use is necessary for the exercise of the rights obtained pursuant to paragraph 1 of this Article.

3. All inventions and technical data, including the rights therein, acquired by the Parties under paragraphs 1 and 2 of this Article shall be made available for the Space Segment Programme. All inventions and technical data, including the rights therein, owned or otherwise acquired by the Parties prior to entering into this Arrangement, or developed or acquired by them thereafter otherwise than pursuant to this Arrangement, shall remain their property. However, each Party shall, on fair and reasonable terms and conditions, disclose and permit the use of such inventions and technical data for purposes of the Space Segment Programme, to the extent the Party has the right to do so and such disclosure or use is directly applicable to the Space Segment Programme.
4. Any right of disclosure or use granted to or by a Party pursuant to paragraphs 1 and 2 of this Article shall not be limited in its duration by the term of this Arrangement.

ARTICLE 15

(Modifications)

1. This Arrangement may be modified by mutual agreement of the Parties, provided that the rights granted by the Parties to the signatories to the Memorandum of Understanding are safeguarded.

2. Subject to the mutual agreement of the Parties hereto, new parties may be allowed to participate in the Space Segment Programme. Unless otherwise agreed by the Parties, the percentage allocated to any new party shall be taken proportionally from the respective percentages of the Parties. The Parties shall ensure that the rights accorded to the signatories to the Memorandum of Understanding shall not thereby be reduced. For the purposes of this clause, Member States of ESRO, present and future, wishing to participate in the Programme shall not be regarded as new parties.

ARTICLE 16

(Liability)

1. The Parties, their directors, officers, agents, and employees, shall not be liable to each other nor shall they assert any claim against one another for loss or damage sustained by reason of any unavailability, delay, or faultiness of telecommunications services provided or to be provided under the Programme.
2. Should any Party be legally obligated to pay any claim, including associated costs and expenses, arising out of the establishment or implementation of the Space Segment Programme, the other Parties shall contribute to the full amount of such claim, in proportion to their respective percentages specified in paragraph 1 of Article 9 of this Arrangement, to the extent such claim is not satisfied through indemnification, insurance, or other financial arrangements. The Party against which the claim is asserted must provide the other Parties with immediate notice thereof and afford them the opportunity, through the SB, to advise and recommend with respect to the defense or other disposition of the claim.

ARTICLE 17

(Settlement of Disputes)

1. Any dispute or disagreement arising among the Parties in connection with any interpretation of any provisions of this Arrangement, or the compliance or noncompliance therewith, or the validity or enforceability thereof, which is not settled to the mutual satisfaction of such representatives as the Parties may designate, within sixty (60) days, or such longer period as may be mutually agreed upon, from the date that the Party disputant notifies the other Parties in writing that such dispute or disagreement exists, shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce, in effect on the date such notice is given.
2. The arbitration proceedings shall be conducted at Paris, France. The arbitration award shall be final and binding upon the Parties and shall be executed, upon appropriate application, in accordance with the rules or laws concerning execution of awards of the State in which it is to be executed. Each party shall bear the cost of preparing and presenting its case. The cost of the arbitration, including the fees and expenses of the arbitrators, shall be shared equally by the Parties unless the award otherwise provides.
3. The Arbitral Tribunal shall base its award upon the provisions of this Arrangement and, in the absence of applicable law, the Tribunal shall base its award upon applicable French civil law.

ARTICLE 18

(Authority)

The implementation of this Arrangement shall be subject to the receipt by the Parties of the necessary authorisations under any applicable law. The Parties shall use their best efforts to obtain promptly and maintain any such authorisations.

ARTICLE 19

(Assignment)

No Party hereto shall assign or delegate any of its rights, duties or obligations under this Arrangement without the prior express written approval of the other Parties hereto.

ARTICLE 20

(Taxes and Customs Duties)

The Parties shall use their best efforts to obtain exemption from any taxes on purchases, services and salaries and from customs duties, as may be required and necessary for the execution of the Space Segment Programme.

ARTICLE 21

(Term)

Except as the Parties may otherwise mutually agree, this Arrangement shall expire on 30 June 1985. Upon expiration of this Arrangement, the property rights and interests owned

in undivided shares by the Parties shall be distributed in proportion to the respective percentages of the Parties specified in paragraph 1 of Article 9 of this Arrangement. The provisions of this Article do not apply to the rights and interests acquired pursuant to Article 14 of this Arrangement.

ARTICLE 22

(Effective Date)

The present Arrangement shall be signed by the Director General of ESRO and by the duly accredited representatives of the Company and of Canada, and it shall take effect on the date upon which all three such signatures are affixed hereto. ,

DONE IN Washington, D.C., United States of America, this second day of December nineteen hundred and seventy-four in the English and French languages, both being equally authoritative, in three original copies.

For the Government of Canada

A handwritten signature in dark ink, appearing to read 'C. H. Chapman', with a stylized, cursive script.

C. H. Chapman

For COMSAT General Corporation

A handwritten signature in dark ink, appearing to read 'John A. Johnson', with a stylized, cursive script.

John A. Johnson

For the European Space Research Organisation

A handwritten signature in dark ink, appearing to read 'R. Gibson', with a stylized, cursive script.

R. Gibson

AGREEMENT
ON THE ESTABLISHMENT
OF THE "INTERSPUTNIK"
INTERNATIONAL SYSTEM
AND ORGANIZATION
OF SPACE COMMUNICATIONS

The Contracting Parties,
recognizing the need to contribute to the strengthening and development of comprehensive economic, scientific, technical, cultural and other relations by communications as well as by radio and television broadcasting via satellites;

recognizing the utility of co-operation in theoretical and experimental research as well as in designing, establishing, operating and developing an international communications system via satellites;

in the interests of the development of international co-operation based on respect for the sovereignty and independence of states, equality and non-interference in the internal affairs as well as mutual assistance and mutual benefit;

in pursuance of the provisions of Resolution 1721 (XVI) of the United Nations General Assembly and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and other Celestial Bodies, of January 27, 1967;

have agreed on the following:

ARTICLE 1

1. There shall be established an international system of communications via satellites.

2. To ensure co-operation and co-ordination of efforts in the design, establishment, operation and development of the communications system the Contracting Parties set up the "Intersputnik" international organization, hereinafter referred to as the Organization.

ARTICLE 2

1. The "Intersputnik" is an open international organization.
2. The Members of the Organization shall be the governments that have signed this Agreement and have deposited their instruments of ratification in accordance with Article 20 as well as the governments of other states that have acceded to this Agreement pursuant to Article 22.

ARTICLE 3

The seat of the Organization shall be in Moscow.

ARTICLE 4

1. The international system of communications via satellites shall include as its components:
 - a space segment comprising communications satellites with transponders, satellite-borne facilities and ground systems of control to ensure the normal functioning of the satellites;
 - earth stations mutually communicating via satellites.
2. The space segment shall be the property of the Organization or is leased from Members possessing such systems.
3. The earth stations shall be the property of states or recognized operating agencies.
4. The Members of the Organizations shall have the right to include the earth stations which they have built into the communications system of the Organization, provided these stations meet the Organization's specifications.

ARTICLE 5

The international communications system shall be established by the following stages:

- The stage of experimental work done by Members at their earth stations with the use of satellite communications channels made available to the Organization free of charge by the Union of Soviet Socialist Republics on its communications satellites. This stage shall cover the period until the end of 1973.
- The stage of work, involving the use of communications channels on Members' communications satellites on the basis of lease.

- The stage of commercial operation of the communications system with the use of the space segment owned by the Organization or rented from its Members. Transition to this stage will be effected when the establishment of the space segment owned by the Organization or its lease are considered economically advisable by the Contracting Parties.

ARTICLE 6

Communication satellites owned by the Organization shall be launched, put into orbit and operated in orbit by Members which possess appropriate facilities for this purpose on the basis of agreement between the Organization and such Members.

ARTICLE 7

The Organization shall coordinate its activities with the International Telecommunication Union and co-operate with other organizations concerned with the use of communications satellites both in technology (the use of the frequency spectrum, the application of technical standards for communications channels and of equipment standards) and in international reglamentation.

ARTICLE 8

The Organization shall be a legal entity and shall be entitled to conclude contracts, acquire, lease and alienate property and to institute proceedings.

ARTICLE 9

1. It shall enjoy in the territory of the states whose governments are Members of the Organization the legal capacity necessary for the attainment of its goals and the performance of its functions. The scope of this legal capacity shall be determined by appropriate agreements with the competent authorities of the states in whose territory it carries out its activities.

2. The legislation of the states in whose territory the Organization carries out its activities shall apply to all matters not covered by the present Agreement or by agreements referred to in paragraph 1 of this Article.

ARTICLE 10

1. The Organization shall be liable with respect to its obligations within the limits of the property which it owns.

2. The Organization shall not be liable with respect to the obligations of the Contracting Parties, nor the Contracting Parties shall be liable with respect to the obligations of the Organization.

ARTICLE 11

1. The following bodies shall be established to govern the activities of the Organization:

- the Board - a governing body;
- the Directorate - a permanent executive and administrative body - headed by the Director-General.

The time for the establishment of the Directorate and the beginning of its activities shall be determined by the Board.

2. Prior to the beginning of the Directorate's activities the functions of the Director-General in representing the Organization set forth in paragraph 2 of Article 13 shall be performed by the Chairman of the Board.

3. The Auditing Commission shall be established to supervise the financial activities of the Organization.

4. The Board may also set up auxiliary bodies required for the attainment of the goals of this Agreement.

ARTICLE 12

1. The Board shall be composed of one representative from each Member of the Organization.

2. Each Member of the Organization shall have one vote in the Board.

3. The Board shall hold its regular sessions at least once a year. An extraordinary session may be held at the request of any Member of the Organization or the Director-General if no less than one third of the Members of the Organization favour its convocation.

4. The sessions of the Board shall be held, as a rule, at the seat of the Organization. The Board may decide to hold sessions in the territories of other states whose governments are Members of the Organization at the invitation of these Members.

Prior to the beginning of the Directorate's activities the Board shall meet in succession in the states whose governments are Members of the

Organization in the alphabetic order of their names in the Russian language. In this case the costs of holding such sessions are borne by the host Members of the Organization.

5. Chairmanship at the sessions of the Board shall be rotated among the Members of the Organization in the alphabetic order of their names in the Russian language. The representative of the Member next in the alphabet shall be deputy chairman. The chairman and his deputy shall remain in office until the next regular session of the Board.

6. The Board shall be competent to deal with matters covered by this Agreement. The Board shall:

1) examine and approve measures for establishing, acquiring or leasing and operating the space segment;

2) approve plans for the development and improvement of the Organization's communications system;

3) determine specifications for the Organization's communications satellites;

4) examine and approve the programme of putting into orbit the Organization's communications satellites;

5) approve the plan for the distribution of the communications channels among the Members of the Organization as well as the procedure and conditions for the utilization of the communications channels by other users;

6) determine specifications for the earth stations;

7) determine whether the earth stations offered for inclusion into the communications system of the Organization meet the specifications;

8) elect the Director-General and his deputy and supervise the activities of the Directorate;

9) elect the chairman and members of the Auditing Commission and approve the procedure for the work of the Commission;

10) approve the structure and staff of the Directorate as well as the Directorate's Staff Regulations;

11) approve the plan of the activities of the Organization for the coming calendar year;

12) examine and approve the budget of the Organization and the report on its execution as well as the Organization's balance sheet and distribution of profit;

13) examine and approve annual reports of the Director-General on the activities of the Directorate;

14) approve the report of the Auditing Commission;

15) take note of the official statements of the governments wishing to accede to the Agreement;

16) determine the procedure and the dates for the payment of proportional contributions as well as readjust the contribution shares in accordance with paragraph 5 of Article 15;

17) set the rates for transmitting a unit of information or the lease cost of the Organization's satellite communications channel;

18) consider proposals for amendments to this Agreement and submit them to the Contracting Parties for approval as provided for in Article 24;

19) adopt its own rules of procedure;

20) examine and decide on other matters arising from this Agreement.

7. The Board should seek unanimity in adopting its decisions. If this is not achieved, the decisions of the Board shall be considered adopted if no less than two thirds of all Members of the Board vote for them. The decisions of the Board will not be binding on those members who did not favour their adoption and submitted their reservations in writing; however, such Members may later associate themselves with the decisions.

8. In performing its functions set forth in paragraph 6 of this Article the Board shall act within the resources determined by the Contracting Parties.

9. The first session of the Board shall be convened by the government of the state where the seat of the Organization is situated not later than three months after the entry into force of this Agreement.

ARTICLE 13

1. The Directorate shall consist of the Director-General, his deputy and the required staff.

2. The Director-General who acts on the principles of undivided authority shall be the chief executive of the Organization and in this capacity shall represent it in relations with the competent authorities of the Members of the Organization in all matters relating to its activities, as well as in relations with states whose governments are not Members of the Organization and with international organizations with which the Board finds it necessary to co-operate.

3. The Director-General shall be responsible to the Board and shall act within the scope of the authority conferred on him by this Agreement and the decisions of the Board.

4. The Director-General shall perform the following functions:

1) ensures the implementation of the Board's decisions;

2) negotiates with the communications authorities, design agencies and industrial enterprises of the Members of the Organization on the

questions of designing the entire system and of designing, manufacturing and delivering the satellite-borne equipment elements and units for the Organization's communications satellites;

3) negotiates on the questions of launching communications satellites for the Organization;

4) concludes on behalf of the Board and within the authority determined by the Board international and other agreements;

5) draws up the budget estimates for the forthcoming fiscal year, submits them to the Board for approval and reports to the Board on the execution of the budget for the past financial year;

6) prepares for submission to the Board the report on the Directorate's activities for the past year;

7) draws up plans for the Organization's activities as well as for the development and improvement of the communications system and submits them to the Board for approval;

8) ensures the preparation, convocation and holding of the sessions of the Board.

5. The Director-General and his deputy shall be elected from among the nationals of the states whose governments are Members of the Organization for a period of four years. The Deputy Director-General may be elected, as a rule, for one term only. The Director-General and his deputy shall not be citizens of the same state.

6. The staff of the Directorate shall be composed of nationals of the states whose governments are Members of the Organization with due regard for their professional qualifications and the equitable geographical representation.

ARTICLE 14

1. The Auditing Commission shall consist of three members elected for a period of three years from among the nationals of different states whose governments are Members of the Organization. The chairman and a member of the Auditing Commission shall not hold any office in the Organization.

2. The Director-General shall make available to the Auditing Commission all material and documents required for auditing.

3. The report of the Auditing Commission shall be submitted to the Board of the Organization.

ARTICLE 15

1. A statutory fund (fixed and current assets) shall be established to finance the activities of the Organization. The decision on the establishment and the size of the statutory fund shall be taken by the Contracting Parties on the basis of the recommendation of the Board and shall be formalized by a special protocol. The amount of the proportional contributions of the Members of the Organization to the statutory fund shall be fixed in proportion to the extent to which they use the communications channels.

2. If in the process of the improvement of the communications system a necessity to increase the statutory fund is revealed, the sum of additional contributions shall be apportioned among the Members of the Organization who have given their consent to such an increase.

3. The contributions of the Members of the Organization to the statutory fund shall be used to meet the following expenses of the Organization:

- 1) for research, design and experimental work relating to the space segment and the earth stations;
- 2) for design, construction, acquisition or lease of the space segment;
- 3) for launching and putting into orbit communications satellites of the Organization;
- 4) for other purposes in connection with the activities of the Organization.

4. Prior to the establishment of the statutory fund the Organization shall conduct its activities on the basis of a special budget drawn up for each calendar year. The expenses envisaged in the budget for the maintenance of the staff of the Directorate, the holding of the Board's sessions and other administrative activities shall be met by the Members of the Organization in proportions fixed by the Contracting Parties on the recommendation of the Board and formalized by a special protocol.

5. Upon the admission of new Members to the Organization or in the case of the withdrawal from the Organization, the share of contributions of each remaining Member shall be changed accordingly.

6. The currency in which contributions are paid to the statutory fund and the Organization budget shall be determined by the Contracting Parties on the recommendation of the Board.

7. The Organization shall charge 3 per cent annually for sums which Members have failed to pay by the date fixed.

8. If a Member of the Organization fails to meet its financial obligations within one year the Board will decide on a partial or complete suspension of its rights arising from membership in the Organization.

9. The profits derived from the operation of the communications system shall be shared by the Members of the Organization in proportion to the amount of their contributions. The Members may decide to use the profits to increase the statutory fund or to set up some special funds.

10. The expenses for the maintenance of participants in conferences and meetings convened in connection with the implementation of the goals of the Organization, including the sessions of the Board, shall be met by the Contracting Parties represented on such conferences and meetings.

ARTICLE 16

1. The Organization shall operate the space segment making communications channels available to its Members and other users in accordance with the provisions of this Agreement.

2. The communications channels at the disposal of the Organization shall be distributed among the Members of the Organization on the basis of their needs for channels. Communications channels which are in excess of aggregate requirements of all Members of the Organization may be leased to other users.

3. Payment for the communications channels made available shall be charged according to rates established by the Board. The rates shall be fixed at the average world level calculated in gold francs.

The payment for communications services shall be made in a manner determined by the Board.

ARTICLE 17

1. Any of the Contracting Parties may denounce this Agreement by notice in writing to that effect given to the Depositary Government.

The denunciation of the Agreement by such Contracting Party takes effect upon the termination of the financial year during which a period of one year expires from the date of notification of the Depositary Government of the denunciation. Such Contracting Party shall pay within the period fixed by the Board the sum of contributions due for the financial year in which the denunciation becomes effective and shall also carry out all other financial obligations assumed.

2. The amount of the monetary compensation due to the Contracting Party which has denounced the Agreement shall be determined by the Board in accordance with the sum of contributions paid by that Contracting Party to the statutory fund of the Organization, with due regard to physical and moral depreciation of the fixed assets. The monetary compensation shall be paid following the approval by the Board of the budget report for the financial year during which the denunciation takes effect.

ARTICLE 18

1. This Agreement may be terminated with the consent of all the Contracting Parties.

The termination of the Agreement amounts to the dissolution of the Organization.

The procedure for the dissolution of the Organization shall be determined by the Board.

2. In the event of the dissolution of the Organization its fixed assets shall be realized and the Members of the Organization shall be paid monetary compensation according to their participation in capital expenditure for the establishment of the communications system with due regard to physical and moral depreciation of the fixed assets. The available current assets, with the exception of the part intended to meet the obligations of the Organization, shall be distributed among the Members of the Organization in proportion to the monetary contributions actually paid as of the date when the Organization was dissolved.

ARTICLE 19

The languages of the Organization shall be English, French, Russian and Spanish.

The extent to which a language is used shall be determined by the Board depending on the actual requirements of the Organization.

ARTICLE 20

1. This Agreement is open for signing until _____ in Moscow.

The Agreement shall be subject to ratification. Instruments of ratification shall be deposited with the Government of the USSR which is designated the Depositary Government of this Agreement.

ARTICLE 21

The Agreement shall enter into force on the deposit of six instruments of ratification.

ARTICLE 22

1. The government of any state which did not sign this Agreement may accede to it. In that case the government shall submit to the Board of the Organization a formal statement to the effect that it shares the goals and principles of the activities of the Organization and assumes the obligations under this Agreement.

2. Instruments of accession to the Agreement shall be deposited with the Depositary Government.

ARTICLE 23

For governments whose instruments of ratification or accession are deposited subsequent to the entry into force of this Agreement, it shall enter into force on the date of the deposit of the above instruments.

ARTICLE 24

Amendments to this Agreement shall come into force for each Contracting Party accepting the amendments upon their approval by two thirds of the Contracting Parties. An amendment which has come into force shall be binding on the other Contracting Parties after their acceptance of such amendment.

ARTICLE 25

1. The Depositary Government of this Agreement shall inform all Contracting Parties of the date of each signature, of the date of deposit of each instrument of ratification and accession, of the date of the entry into force of the Agreement and of all other notices it has received.

2. This Agreement shall be registered by the Depositary Government pursuant to Article 102 of the Charter of the United Nations.

ARTICLE 26

This Agreement, the English, French, Russian and Spanish texts of which are equally authentic, shall be deposited in the archives of the Depositary Government. Duly certified copies of the Agreement shall be transmitted by the Depositary Government to the Contracting Parties.

In witness whereof the undersigned, duly authorized, have signed this Agreement.

Done in Moscow on November 15, 1971.

INTERSPUTNIK

Ratifications

Bulgaria

Cuba

Czechoslovakia

German Democratic Republic

Hungary

Mongolia

Poland

Romania

U.S.S.R.

ARAB SATELLITE COMMUNICATIONS SYSTEM

The Arab Satellite Communications System resulted from a survey made by the International Telecommunication Union of the national and international telecommunications network requirements of countries in the Middle East and the Mediterranean regions. The ITU survey, funded by the United Nations Development Programs, dealt with a variety of requirements which included public telecommunications services and TV relays, educational and exchange TV programs by means of direct broadcasting, meteorological services and other facilities for civil aviation and shipping.

The Arab Satellite System was conceived as a means of providing a combination of public telecommunications and direct broadcasting facilities for the entire Arab region (extending from Mauritania west to the Gulf area in the east) to meet part of the national and international requirements identified in the survey.

Requirements

The projected requirements of satellite capacity are said to be:

1980 - 12 low power transponders for conventional telecommunications services including TV.

One of two high power transponders for community TV.

Earth stations will have G/T ranging between 20-30 dB/K.

Community TV reception stations might be smaller stations with G/T of about 11 dB/K.

1990 - Total capacity requirements rise to about 14 transponders.

THE ARAB CORPORATION FOR SPACE COMMUNICATIONS^{1/}AMIRI DECREE

AMIRI DECREE NO. 25/1976 CONCERNING THE RATIFICATION OF THE AGREEMENT OF THE ARAB CORPORATION FOR SPACE COMMUNICATIONS

We, Isa bin Salman Al Khalifa, Amir of the State of Bahrain, after reviewing Article 37 of the Constitution and the Amiri Decree, No. 4/1975 and the Agreement of 'The Arab Corporation' for Space Communications and on the recommendation of the Minister of Communications and after the approval of the Council of Ministers hereby decree:-

Article 1

The Agreement of The Arab Corporation for Space Communications herewith attached, and signed in Cairo on 22nd Jumda Al Thaniya 1396 H. corresponding to 20th June 1976 is herein ratified.

Article 2

The Minister of Communications shall implement this decree and it shall be published in the Official Gazette.

Signed: Isa bin Salman Al Khalifa
Amir of the State of Bahrain

Issued at Rifa's Palace on
18 Rajab 1396 H.
15 July 1976

^{1/} The Official Gazette, Issue No. 1185, July 22, 1976, Gulf Public Relations, Translation Service.

THE AGREEMENT OF THE ARAB CORPORATION FOR SPACE COMMUNICATIONS

The Governments of:-

The Hashemite Kingdom of Jordan
 The State of Bahrain
 The Democratic People's Republic of Algeria
 The Democratic Republic of Sudan
 The Democratic Republic of Somalia
 The Sultanate of Oman
 The State of Kuwait
 The Libyan Arab Republic
 The Kingdom of Morocco
 The Yemen Arab Republic
 Palestine
 The United Arab Emirates
 The Republic of Tunisia
 The Kingdom of Saudi Arabia
 The Syrian Arab Republic
 The Republic of Iraq
 The State of Qatar
 The Republic of Lebanon
 The Arab Republic of Egypt
 The Islamic Republic of Mauritania
 The Democratic People's Republic of Yemen

desiring to establish an Arab Satellite network and to use an Arab satellite as a means of serving the purposes of communications, information, culture, education and any other services for which the above-mentioned network could be utilized and towards the fulfillment of the objectives of the Arab League Charter, have sanctioned the following regulations:

Article 1

Definitions

For the purposes of this agreement, the following terms shall convey the meaning indicated alongside the said terms.

- a) The Agreement: The agreement to establish the Arab Corporation for Space Communications and the appendices attached thereto.
- b) The Corporation: The Arab Corporation for Space Communications.
- c) The Member: The State ratifying the agreement to establish the corporation or that which joins it.

- d) The General Body Meeting: The general body meeting of the corporation.
- e) The Board of Directors: The board of directors of the corporation.
- f) The executive Committee: The executive committee of the corporation.
- g) The General Manager: The General Manager of the corporation.
- h) Space Sector: Communication satellites, monitoring and telemetry control and observation equipment and the relevant installations and the necessary equipment to operate the satellites.
- i) Telecommunications: Any transmission or reception of signals, signs, writing, photographs, sounds and information of any kind, whether by means of wire, wireless, optical or by means of any other electromagnetic systems.
- j) General Services of Telecommunications: The stationary or mobile telecommunication services which can be obtained and made available to the public by means of satellites such as telephones, telegraphy, telex, transmission of photographs and radio and television programmes between ground stations authorised by the corporation and which are affiliated to the Satellite Sector of the Corporation to be thence transmitted to the public and the circuits hired by any of these purposes.
- k) Specialised Telecommunication Services: Telecommunication services that can be made available by means of satellites besides those defined in clause 'j' of this article including wireless navigation services, radio, television satellite services, space research services, meteorological services and earth resource services.
- l) The User: He who benefits from the services of the corporation but not a member thereof.
- m) Ground Stations: Any stationary or mobile ground installations installed for the purpose of transmission or reception via the Arab Satellite excluding monitoring telemetry control and observation stations.

Article 2

The Establishment of the Corporation:

An independent corporation shall be established within the framework of the League of Arab States, by the name of The Arab Corporation for Space Telecommunications.

The corporation shall have a full legal character and has the right, within its objects, to conclude and contract agreements and possess movable and

immovable property and dispose of them and the right to litigate and undertake all legal measures.

Article 3

Objects and Activities of the Corporation

1. The corporation aims to provide and set up an Arab Space Sector for general and specialized services in the field of telecommunications for all member states of the Arab League in accordance with technical and economic criteria accepted in the Arab and international quarters.
2. Besides the realization of the said objects the corporation may undertake the following activities:
 - a) Assisting Arab countries financially or technically in designing and constructing ground stations.
 - b) Undertaking research and special studies concerning space science and technology.
 - c) Encouraging the establishment of industries necessary to supply installations to the space sector and ground stations in the Arab states.
 - d) Undertaking television and radio transmissions and telecasting among departments and organizations concerned in the Arab states, via the Arab Satellite network and laying down regulations organising the use of T.V. and radio channels in such a manner as to satisfy the local and collective needs of the Arab states.
3. Any other activities that serve the objects of the corporation besides those already stated, provided that they are approved by the General Meeting of the corporation on the recommendation of one member state of the corporation or more or of the Board of Directors.

Article 4

Membership, Head Office and Main Control Station

1. Membership of the corporation shall be for Arab states which are members of the League of Arab States and which subscribed to the capital of the corporation.
2. The Head Office of the corporation shall be in the city of Riyadh in the Kingdom of Saudi Arabia and it is competent to the corporation to have branches in the member Arab States.

3. The Main Control Station shall be in the Kingdom of Saudi Arabia.

Article 5

The Capital of the Corporation

The capital shall be US\$ 100 million divided into 1,000 shares, the value of each share is US\$ 100,000. The capital may be increased on the recommendations of the Board of Directors and the approval of the General Body Meeting.

Article 6

Subscription to the Capital of the Corporation

1. The contribution by the member states to the capital of the corporation shall be in accordance with the proportions set out in the appendix attached to this agreement.
2. However, after the lapse of two years from the date of commencement of the operations of the space sector, the following points shall be given effect to:
 - a) The subscription shall be in proportion to the actual use of the space sector by member states.
 - b) The states, which have not yet used the space sector on account of the incompleteness of their ground stations, shall have the minimum subscription.
3. A member state of the corporation may call for its subscription, as is set out in the appendix attached to this agreement, to be reduced after submitting an application to the General Body Meeting which will decide upon the redistribution of the shares thus waived.
4. In all cases the minimum subscription shall be of one share.
5. The proportional subscription set out in the appendix attached to this agreement, shall be reviewed in the event of a new member joining the corporation or the increase of the capital or the withdrawal of a member after a resolution by the General Body meeting.

Article 7

Paying the Value of Shares

1. 5% of a member's subscription shall be paid on ratifying the agreement.

2. The remainder of the value of the shares shall be paid in accordance with a schedule drawn by the Board of Directors and approved by the General Body Meeting.
3. The members shall settle amounts due within 60 days from the date of their maturity. In the event of an amount overdue a member is bound to pay interest on the amount overdue at the rate of 1% for every month on the said basis.

Article 8

Subscriber's Profits

The profits of the corporation shall be distributed among the member states in accordance with the proportion of their shares and the regulations of the Executive Committee.

Article 9

The Organs of the Corporation

The corporation shall consist of:-

1. The General Body
2. The Board of Directors
3. The Executive Body

Article 10

The General Body

1. The General Body shall comprise the ministers in charge of telecommunications in the Arab member states or those whom they deputise. Each member shall have one vote.
2. The Chairmanship for the General Body shall be on an alternate basis according to alphabetical order of the names of the member state.
3. The General Body shall hold an annual ordinary session in April at the invitation of the General Manager from the Head Office of the Corporation. The General Body may hold its meetings at a branch office or in a member state at its invitation.
4. The General Body may hold an extraordinary session at the request of the Board of Directors or on a requisition by one member or more submitted

to the General Manager and seconded by one third of the members. In the requisition the purpose for the calling of an extraordinary meeting shall be explicitly stated. The General Manager shall make the necessary arrangements to hold the meeting within 3 months of receiving the requisition.

5. The General Body Meeting shall be valid only if attended by the majority of the members.
6. The resolutions of the General Body Meeting shall be taken on major issues by a two thirds majority of the members present and voting. In procedural matters, resolutions shall be adopted by an ordinary majority of the members present and voting. The General Body shall adopt a resolution whether an issue is a major or a procedural one by the ordinary majority of the members present and voting. In the event of a tie the chairman shall have a casting vote.
7. The following shall be invited to attend the General Body Meeting as observers:

The League of Arab States, The Arab States Broadcasting Union, The Arab Union of Telecommunications, The Arab Organisation for Education, Culture and Science.

Organisations with objects connected to those of the corporation may be invited to attend the meeting after securing the consent of the General Body.

8. The General Manager shall undertake the functions of the General Secretary of the General Body.

Article 11

Functions of the General Body

The General Body is the supreme authority of the corporation and shall undertake the functions stipulated in Article 3 of this agreement and any other function necessary for the attainment of the objects of the corporation. The General Body shall undertake the following in particular:-

1. Laying down the general policy of the corporation and the drawing up of plans which help to achieve the aims and activities of the corporation as stipulated in this agreement and to pass resolutions and recommendations to the Board of Directors in this respect.

2. Sanctioning the necessary projects to expand and develop the space sector and its requirements.
3. Setting the regulations pertaining to the determination of charges for using the space sector for all types of services on the recommendations of the Board of Directors.
4. Setting up the standards and general rules which must be maintained in the ground stations so as to make them suitable to communicate with the space sector as recommended by the Board of Directors.
5. Studying the reports of the Board of Directors on the various activities of the corporation and proposing relevant recommendations.
6. Organising the relations of the corporation with international organisations and setting up the necessary principles for this purpose in accordance with general international regulations.
7. Settlement of disputes which may arise between the corporation and a member or more in accordance with article 19 of this agreement.
8. Considering complaints and disagreements arising from the use of the Arab Space network which are submitted to it by the members directly or through the Board of Directors.
9. Adopting resolutions concerning the withdrawal of a member.
10. Setting up regulations with respect to financial settlements in the event of a new member joining or the withdrawal of a member or the re-allocation of shareholding proportions.
11. Suspension of membership rights of a member who fails to settle his financial obligations after a year of their falling due until these obligations are met.
12. Ratifying the General Budget and Balance Sheet of the Corporation.
13. Approval of the recommendation of the Board of Directors concerning the appointment of the General Manager.
14. Studying the reports submitted by the Board of Directors concerning future plans and the amounts allocated to them and adopting resolutions regarding them.

15. Adopting resolutions concerning investment shares on the recommendation of the Board of Directors.
16. Adopting necessary resolution concerning representation in the Board of Directors under Article 12 of this agreement.
17. Election of members of the Board of Directors as stipulated in clause 'B' of Article 12 of this Agreement.
18. Appointment of auditors annually on the recommendation of the Board of Directors.
19. Approval regarding increase of the capital of the corporation on the recommendation of the Board of Directors.
20. Studying and approving proposals for the amendment of corporation's agreement.
21. Authorising the Board of Directors to undertake some of its functions.
22. Sanctioning the time table suggested by the Board of Directors concerning the settlement of members' subscriptions under Article 7 of this agreement.
23. Sanctioning of financial and administrative regulations as suggested by the Board of Directors.
24. Drawing up the code of conduct of the General Body.

Article 12

The Board of Directors

1. The Board of Directors shall be comprised of 9 members who shall be elected as follows:-
 - a) The first five members according to the proportion of their shareholding in the capital of the corporation. If more than five members are equal in their shareholding proportions, the General Body shall elect the required number from amongst them.
 - b) Four members shall be elected by the General Body from the other members on an alternate basis for an unrenovable period of two years.

2. The Board of Directors shall elect from amongst its members a chairman and a vice-chairman. The term of their office shall be determined by the regulations governing executive authority.
3. The Board of Directors shall hold its meetings in accordance with the provisions of the regulations governing executive authority.
4. The meetings of the Board of Directors shall be held at the Head Office of the corporation or at any of its branches unless an invitation has been extended by a member state.
5. The meeting shall have the requisite quorum if a minimum of seven of its members are present. If there is no quorum, the Board of Directors shall meet after 2 weeks from the date appointed for the original meeting. If again the quorum could not be maintained the General Manager shall call an extraordinary General Body Meeting after a month from the date appointed for the meeting of the Board of Directors. The General Body Meeting shall undertake the functions of the Board of Directors at such meetings.
6. Each member shall have one vote.
7. The General Manager shall attend the meeting of the Board of Directors but he shall not be entitled to vote.
8. An open meeting of the Board of Directors will be attended, as observers, by a representative of the League of Arab States, the Arab Union for Telecommunications, the Arab States Broadcasting Union and the Arab Organisation for Education, Culture and Science.

The Board of Directors shall have the right to invite whom it deems fit to attend its meeting.

Article 13

The Functions of the Board of Directors

The Board of Directors undertakes to provide, utilise and maintain the space sector and undertakes to execute the policies entrusted upon it by the General Body particularly:

1. Implementation of the General Policy and plans drawn by the General Body.
2. Execution of the policies, plans and programmes related to the design, construction, operation, development and maintenance of the space

sector and undertaking any activities the corporation is authorised to carry out in accordance with the agreement and the resolutions of the General Body.

3. The periodical determination of charges for using the space sector for all kinds of services according to the suggestions of the Executive Body and the regulations approved by the General Body Meeting.
4. Proposing criteria and general rules which shall be maintained in the ground stations so as to be suitable to communicate with the space sector and submitting them to the General Body for approval.
5. Submitting reports to General Body concerning:
 - a) Proposed activities of the corporation.
 - b) Implementation programmes, future programmes and financial estimates thereto.
6. Adoption of standards and procedures in accordance with the general rules laid down by the executive body concerning sanctioning ground stations to communicate with the space sector and verifying their specifications to coordinate their communication with the space sector after these standards and procedures have been approved by the General Body.
7. Adoption of general rules which govern the distribution of the space sector capacity in accordance with the proposals of the Executive Body.
8. Determination of investment shares and referring them to the General Body.
9. Submission of annual report on the activities of the corporation, annual budget and the final account to the General Body.
10. Provision of information, within the limits of the corporation's activities, to a member who may ask for it so as to enable such member to meet his obligations which may exceed the jurisdiction of the Executive Body.
11. Proposal to increase the capital of the corporation.
12. Proposing the appointment of the auditors.

13. Appointment of the General Manager after the approval of the General Body in accordance with Clause 13 of Article 11, and terminating his services in accordance with Clause 3 of Article 15.
14. Determination of the remuneration of the General Manager.
15. Appointment of a deputy General Manager in the event of the General Manager's post falling vacant until a new General Manager is appointed at the next General Body Meeting.
16. Ratifying the appointment by the General Manager of high ranking employees who directly report to him.
17. Preparation of a time table of the payment of the value of shares and referring it to the General Body.
18. Approving applications to use the space sector.
19. Preparation of executive regulations and financial and administrative rules and referring them to the General Body.
20. Formation of necessary committees to undertake specific tasks to serve the objects of the corporation within the limits of its jurisdiction.
21. Naming organisations which may be necessary to be invited to attend its meetings.
22. Considering all reports, recommendations, and various views referred to it by the General Manager.

Article 14

The Executive Body

1. The Executive Body shall comprise a number of sectors and administrative units to be decided by the rules of conduct of the corporation.
2. The General Manager shall undertake the chairmanship of the Executive body. He shall be assisted by an adequate number of technical and administrative staff. This appointment will depend on a guarantee of their competence and efficiency. The principle of geographical representation regarding their appointment shall be adhered to as far as possible.

Article 15

The General Manager

1. The General Manager of the corporation shall be appointed by a three-year

renewable contract.

2. The General Manager shall be the chairman of the Executive Body of the Corporation and its legal representative. He shall report to the Board of Directors.
3. The Board of Directors may decide to terminate the services of the General Manager. The reasons for such a decision shall be stated.
4. After the approval of the General Body the General Manager shall exercise his powers and functions laid down in the rules of conduct of the corporation.

Article 16

Prerogatives and Immunities

All the provisions of the Prerogative and Immunities agreement of the League of the Arab States passed as per the League's Council resolution No. 575 dated 10.5.1953 shall be applicable in the case of the Arab Corporation for space communication and also:

1. The corporation's monies, shares, property, assets, and equipment shall be exempted from all kinds of taxation; (whether direct or indirect) customs duties and any other duties. Laws and orders passed to ban or restrict importation and exportation concerning that which the corporation imports or exports such as instruments and special material needed for the corporation's business shall not apply to those of the corporation.
2. The corporation, its monies and financial transactions shall be exempted from restrictions imposed on currency and any other restrictions enforced in the country of the Head Office of the corporation or in the locations of its branches and the places where it has activities in the member Arab States.

Article 17

Withdrawal

1. Any member may withdraw from the corporation after submitting an official letter to the Secretary General of the League of the Arab States who, in turn shall notify the member states and the corporation thereof.
2. The withdrawal shall take effect only after the lapse of one year from the date of its submission to the Secretary General of the League of the Arab

States. The said letter may be withdrawn before the expiry of this period.

3. In accordance with Clause 2 of this Article the withdrawing member shall remain responsible for all the obligations which were contracted before the discontinuance of his membership in accordance with Clause 2.
4. On the discontinuance of membership, the corporation shall settle the accounts of the member according to the regulations of the corporation with respect to executive authority.
5. On the discontinuance of membership, the General Body shall amend the shareholding proportions set out in the appendix attached to this agreement in compliance with Article 6 of this agreement.

Article 18

Amendment

1. The agreement to establish the corporation may be amended on the recommendation of one or more of the members to be submitted to the General Manager and approved by one third of its members or at the proposal of the Board of Directors. The General Manager shall notify all the member states of the said proposal.
2. The General Body shall consider the proposed amendment at its first ordinary meeting held after the submission of the proposed amendment.

An extraordinary meeting may be called to consider such proposal in accordance with Article 10 of this agreement, provided that the proposed amendment has been circulated among the members ninety days before the date of such meeting.

3. The General Body shall approve the amendment by a majority of two thirds of its members.
4. The amendment shall be enforced after a third of the member states have handed the documents ratifying the amendment, provided that their proportion of shareholding in the capital of the corporation is not below 60%.

Article 19

Settlement of Disputes

The General Body of the corporation shall adjudicate upon disputes between the corporation on the one hand and one or more members on the other or disputes

amongst the members themselves. The resolutions adopted by the General Body shall come into force for a period not more than ninety days of the date of its issuance.

Article 20

Ratification

1. Each Arab State shall ratify the agreement with respect to the establishment of the corporation according to its own constitutional system. The ratification documents shall be lodged with the League of the Arab States which shall prepare minutes of acknowledgement of the ratification document of each member and notify all Arab States thereof.
2. An Arab state which is not a signatory to this agreement may join it and its application document shall be lodged in accordance with procedures stipulated in Clause 1 of this Article.

Article 21

Reservation

The ratification of this agreement or the joining of it, shall be viewed for all purposes as a complete adherence to all its provisions and shall not be subject to any reservations.

Article 22

Operation of this Agreement

1. This agreement shall come into force after sixty days from the date on which seven Arab States have lodged with the League of the Arab States their ratification documents of this agreement.
2. The agreement shall come into force, as far as each member is concerned, from the date of lodging their ratification documents with the League of the Arab States.
3. The Secretary General of the League of the Arab States shall undertake to invite members to subscribe to the corporation's capital and the opening of the initial account of the corporation within thirty days of the agreement coming into force.
4. The Secretary General of the League of the Arab States shall summon the constituent meeting of the General Body within two months from the date of the enforcement of the agreement.

Article 23Corporation's Relation with the League of the Arab States

Cooperation shall be maintained between the corporation and the League of the Arab States and its organizations for the attainment of the aims and objectives of the Arab League Charter and the aims and objectives of this agreement.

Towards the foregoing, the authorised representatives, whose names are affixed hereunder have signed this agreement on behalf of their governments.

This agreement is written in Arabic in Cairo on Wednesday 14 Rabi Al Akhar 1396 H, corresponding to 14th April 1976 A. D. from an original copy which is lodged with the General Secretariat of the League of the Arab States and a duplicate of which shall be given to each contracting country.

On behalf of the governments of:

The Hashemite Kingdom of Jordan - Mohammed Adhoob Al Zain
 The United Arab Emirates - Mohammed Sa'id Al Mulla
 The State of Bahrain -
 The Republic of Tunisia - Abdulla Farahat
 The Democratic People's Republic of Algeria - Abdul Kadir Buhairi
 The Kingdom of Saudi Arabia - Alawi Darwish Kayal
 The Democratic Republic of Sudan - Mostapha Awad Allam
 The Syrian Arab Republic - Omar Al Sibba'i
 The Democratic Republic of Somalia - Abdul Rahman Farih Ismail
 The Republic of Iraq - Askar Mahmood Rida
 The Sultanate of Oman - Salem bin Nasir
 The State of Kuwait - Sulaiman Hamood Al Khalid
 The Republic of Lebanon -
 The Libyan Arab Republic - Noori Al Fairoori Al Madani
 The Arab Republic of Egypt - Abdul Fattah Abdulla
 The Kingdom of Morocco -
 The Islamic Republic of Mauritania -
 The Yemen Arab Republic - Hussain Al Ghaffari
 The Democratic People's Republic of Yemen - Ahmed Saleh Abdo
 Palestine - Hamed Abu Sitta

APPENDIX

TABLE OF SUBSCRIPTION TO THE CAPITAL OF THE ARAB CORPORATION
FOR SPACE COMMUNICATIONS CALCULATED ON THE BASIS OF THE
CAPITAL OF 100 MILLION DOLLARS

S. No.	State	Percentage of Shareholding	Amount of Subscription in Mil- lion Dollars
1.	Kingdom of Saudi Arabia	26.2	26.2
2.	Libyan Arab Republic	18.5	18.5
3.	Arab Republic of Egypt	10.4	10.4
4.	State of Kuwait	8.3	8.3
5.	United Arab Emirates	6.6	6.6
6.	Republic of Lebanon	6.3	6.3
7.	State of Qatar	5.0	5.0
8.	State of Bahrain	4.0	4.0
9.	Hashemite Kingdom of Jordan	3.3	3.3
10.	Republic of Iraq	2.6	2.6
11.	Democratic Republic of Sudan	2.1	2.1
12.	Syrian Arab Republic	1.7	1.7
13.	Sultanate of Oman	1.0	1.0
14.	Democratic People's Republic of Algeria	0.9	0.9
15.	Yemen Arab Republic	0.7	0.7
16.	Democratic People's Republic of Yemen	0.6	0.6
17.	Republic of Tunisia	0.6	0.6
18.	Kingdom of Morocco	0.5	0.5
19.	Democratic Republic of Somalia	0.3	0.3
20.	Islamic Republic of Mauritania	0.2	0.2
21.	Palestine	0.2	0.2
Total		100%	100

NATIONAL AERONAUTICS AND SPACE ACT OF 1958, AS AMENDED

AN ACT To provide for research into problems of flight within and outside the earth's atmosphere, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—SHORT TITLE, DECLARATION OF POLICY, AND DEFINITIONS

SHORT TITLE

SEC. 101. This Act may be cited as the "National Aeronautics and Space Act of 1958".

DECLARATION OF POLICY AND PURPOSE

SEC. 102. (a) The Congress hereby declares that it is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind.

(b) The Congress declares that the general welfare and security of the United States require that adequate provision be made for aeronautical and space activities. The Congress further declares that such activities shall be the responsibility of, and shall be directed by, a civilian agency exercising control over aeronautical and space activities sponsored by the United States, except that activities peculiar to or primarily associated with the development of weapons systems, military operations, or the defense of the United States (including the research and development necessary to make effective provision for the defense of the United States) shall be the responsibility of, and shall be directed by, the Department of Defense; and that determination as to which such agency has responsibility for and direction of any such activity shall be made by the President in conformity with section 201(e).

(c) The aeronautical and space activities of the United States shall be conducted so as to contribute materially to one or more of the following objectives:

(1) The expansion of human knowledge of phenomena in the atmosphere and space;

Public Law
85-568,
85th Congress
H.R. 12575.
July 29, 1958,
72 Stat. 426.

42 U.S.C. 2451

(2) The improvement of the usefulness, performance, speed, safety, and efficiency of aeronautical and space vehicles;

(3) The development and operation of vehicles capable of carrying instruments, equipment, supplies, and living organisms through space;

(4) The establishment of long-range studies of the potential benefits to be gained from, the opportunities for, and the problems involved in the utilization of aeronautical and space activities for peaceful and scientific purposes;

(5) The preservation of the role of the United States as a leader in aeronautical and space science and technology and in the application thereof to the conduct of peaceful activities within and outside the atmosphere;

(6) The making available to agencies directly concerned with national defense of discoveries that have military value or significance, and the furnishing by such agencies, to the civilian agency established to direct and control nonmilitary aeronautical and space activities, of information as to discoveries which have value or significance to that agency;

(7) Cooperation by the United States with other nations and groups of nations in work done pursuant to this Act and in the peaceful application of the results thereof; and

(8) The most effective utilization of the scientific and engineering resources of the United States, with close cooperation among all interested agencies of the United States in order to avoid unnecessary duplication of effort, facilities, and equipment.

(d) It is the purpose of this Act to carry out and effectuate the policies declared in subsections (a), (b), and (c).

DEFINITIONS

42 U.S.C. 2452.

SEC. 103. As used in this Act—

(1) the term "aeronautical and space activities" means (A) research into, and the solution of, problems of flight within and outside the earth's atmosphere, (B) the development, construction, testing, and operation for research purposes of aeronautical and space vehicles, and (C) such other activities as may be required for the exploration of space: and

(2) the term "aeronautical and space vehicles" means aircraft, missiles, satellites, and other space vehicles, manned and unmanned, together with related equipment, devices, components, and parts.

TITLE II—COORDINATION OF AERONAUTICAL AND SPACE ACTIVITIES

NATIONAL AERONAUTICS AND SPACE COUNCIL

SEC. 201¹ (a) There is hereby established, in the Executive Office of the President, the National Aeronautics and Space Council (hereinafter called the "Council") which shall be composed of—

42 U.S.C. 2471.
Establishment;
membership.

(1) the Vice President, who shall be Chairman of the Council;

(2) the Secretary of State;

(3) the Secretary of Defense;

(4) the Administrator of the National Aeronautics and Space Administration; and

(5) the Chairman of the Atomic Energy Commission.

(b) The President shall from time to time designate one of the members of the Council to preside over meetings of the Council during the absence, disability, or unavailability of the Chairman.

Alternate
presiding
officer.

(c) Each member of the Council may designate another officer of his department or agency to serve on the Council as his alternate in his unavoidable absence.

Alternate
members.

(d) Each alternate member designated under subsection (c) of this section shall be designated to serve as such by and with the advice and consent of the Senate unless at the time of his designation he holds an office in the Federal Government to which he was appointed by and with the advice and consent of the Senate.

(e) It shall be the function of the Council to advise and assist the President, as he may request, with respect to the performance of functions in the aeronautics and space field, including the following functions:

Functions.

(1) survey all significant aeronautical and space activities, including the policies, plans, programs, and accomplishments of all departments and agencies of the United States engaged in such activities;

(2) develop a comprehensive program of aeronautical and space activities to be conducted by departments and agencies of the United States;

(3) designate and fix responsibility for the direction of major aeronautical and space activities;

(4) provide for effective cooperation among all departments and agencies of the United States engaged in aeronautical and space activities, and specify, in any case in which primary responsibility for

¹ Reorganization Plan No. 1 of 1973 (38 Federal Register 9579, April 18, 1973), abolished the National Aeronautics and Space Council together with its functions, effective July 1, 1973.

any category of aeronautical and space activities has been assigned to any department or agency, which of those activities may be carried on concurrently by other departments or agencies; and

(5) resolve differences arising among departments and agencies of the United States with respect to aeronautical and space activities under this Act, including differences as to whether a particular project is an aeronautical and space activity.

Executive
secretary.
Appointment
and compen-
sation of
staff.

(f) The Council may employ a staff to be headed by a civilian executive secretary who shall be appointed by the President by and with the advice and consent of the Senate. The executive secretary, subject to the direction of the Council, is authorized to appoint and fix the compensation of such personnel, including not more than seven persons who may be appointed without regard to the civil service laws or the Classification Act of 1949 and compensated at not to exceed the highest rate of grade 18 of the General Schedule of the Classification Act of 1949, as amended, as may be necessary to perform such duties as may be prescribed by the Council in connection with the performance of its functions. Each appointment under the subsection shall be subject to the same security requirements as those established for personnel of the National Aeronautics and Space Administration appointed under section 203(c) (2) of this Act. Other provisions of law or regulations relating to Government employment (except those relating to pay and retirement) shall apply to council employees reporting directly to the chairman to the extent that such provisions are applicable to employees in the office of the Vice President.

Security
check.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

42 U.S.C. 2472.
Establishment;
Administrator.

SEC. 202.² (a) There is hereby established the National Aeronautics and Space Administration (hereinafter called the "Administration"). The Administration shall be headed by an Administrator, who shall be appointed from civilian life by the President by and with the advice and consent of the Senate. Under the supervision and direction of the President, the Administrator shall be responsible for the exercise of all powers and the discharge of all duties of the Administration, and shall have

² The Federal Executive Salary Act of 1964, P.L. 88-426 (sec. 305(12), 78 Stat. 423), repealed the language in sec. 202 (72 Stat. 429) fixing the compensation of the Administrator and Deputy Administrator at per annum rates of \$22,500 and \$21,500, respectively. In lieu thereof, the positions of Administrator and Deputy Administrator were placed in level II and level III, respectively, of the Federal Executive Salary Schedule. In addition, the Federal Executive Salary Act of 1964 placed ten other NASA positions in designated levels of the Federal Executive Salary Schedule (78 Stat. 416 as amended, 5 U.S.C. 5311-5317). See Appendix B.

authority and control over all personnel and activities thereof.

(b) There shall be in the Administration a Deputy Administrator, who shall be appointed from civilian life by the President by and with the advice and consent of the Senate and shall perform such duties and exercise such powers as the Administrator may prescribe. The Deputy Administrator shall act for, and exercise the powers of, the Administrator during his absence or disability.

Deputy
Administrator.

(c) The Administrator and the Deputy Administrator shall not engage in any other business, vocation, or employment while serving as such.

Restriction.

FUNCTIONS OF THE ADMINISTRATION

SEC. 203. (a) The Administration, in order to carry out the purpose of this Act, shall—

42 U.S.C.
2473.

(1) plan, direct, and conduct aeronautical and space activities;

(2) arrange for participation by the scientific community in planning scientific measurements and observations to be made through use of aeronautical and space vehicles, and conduct or arrange for the conduct of such measurements and observations; and

(3) provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof.

(b) The Administration shall initiate, support, and carry out such research, development, demonstrations, and other related activities in solar heating and cooling technologies (to the extent that funds are appropriated therefor) as are provided for in sections 5, 6, and 9 of the Solar Heating and Cooling Demonstration Act of 1974.^{2a}

(c) In the performance of its functions the Administration is authorized—

Functions.

(1) to make, promulgate, issue, rescind, and amend rules and regulations governing the manner of its operations and the exercise of the powers vested in it by law;

Rules and
regulations.

(2) to appoint and fix the compensation of such officers and employees as may be necessary to carry out such functions. Such officers and employees shall be appointed in accordance with the civil-service laws and their compensation fixed in accordance with the Classification Act of 1949, except that (A) to the extent the Administrator deems such action necessary to the discharge of his responsibilities, he may appoint not more than four hundred and twenty-five

Employees:
appointment
and
compensation.

Excepted
positions.

^{2a} Public Law 93-409 September 3, 1974, Section 4, added this new subsection (b) and redesignated old subsection (b) as subsection (c).

Entrance
grades: scien-
tific and
engineering
personnel.

Acquisition,
construction,
maintenance,
etc., of
property.

Lease of
buildings.

Disposal of
property.

Cafeterias and
other facilities
for employees.

Gifts.

of the scientific, engineering, and administrative personnel of the Administration without regard to such laws, and may fix the compensation of such personnel not in excess of the highest rate of grade 18 of the General Schedule of the Classification Act of 1949, as amended, and ³ (B) to the extent the Administrator deems such action necessary to recruit specially qualified scientific and engineering talent, he may establish the entrance grade for scientific and engineering personnel without previous service in the Federal Government at a level up to two grades higher than the grade provided for such personnel under the General Schedule established by the Classification Act of 1949, and fix their compensation accordingly;

(3) to acquire (by purchase, lease, condemnation, or otherwise), construct, improve, repair, operate, and maintain laboratories, research and testing sites and facilities, aeronautical and space vehicles, quarters and related accommodations for employees and dependents of employees of the Administration, and such other real and personal property (including patents), or any interest therein as the Administration deems necessary within and outside the continental United States: to acquire by lease or otherwise, through the Administrator of General Services, buildings or parts of buildings in the District of Columbia for the use of the Administration for a period not to exceed ten years without regard to the Act of March 3, 1877 (40 U.S.C. 34); ⁴ to lease to others such real and personal property; to sell and otherwise dispose of real and personal property (including patents and rights thereunder) in accordance with the provisions of the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 471 et seq.); and to provide by contract or otherwise for cafeterias and other necessary facilities for the welfare of employees of the Administration at its installations and purchase and maintain equipment therefor;

(4) to accept unconditional gifts or donations of services, money, or property, real, personal, or mixed, tangible or intangible;

³ Clause (A) of sec. 203(b)(2), as amended, was further amended August 14, 1964, to read as above by sec. 306(d) (78 Stat. 429) of the Federal Executive Salary Act of 1964, *supra*. Original language of clause (A) appeared at 72 Stat. 429, and previous amendments thereto appear in Public Law 86-481 (74 Stat. 153); Public Law 87-367 (75 Stat. 791); Public Law 87-793 (76 Stat. 864). For annual report to Congress, see Appendix A.

⁴ Authority to lease buildings in the District of Columbia was added to sec. 203(b)(3), 72 Stat. 430, by Public Law 86-20, May 13, 1959 (73 Stat. 21). The effect of 40 U.S.C. 34 has been modified by Public Law 90-550, October 4, 1968 (82 Stat. 944).

(5) without regard to section 3648 of the Revised Statutes, as amended (31 U.S.C. 529), to enter into and perform such contracts, leases, cooperative, agreements, or other transactions as may be necessary in the conduct of its work and on such terms as it may deem appropriate, with any agency or instrumentality of the United States, or with any State, Territory, or possession, or with any political subdivision thereof, or with any person, firm, association, corporation, or educational institution. To the maximum extent practicable and consistent with the accomplishment of the purpose of this Act, such contracts, leases, agreements, and other transactions shall be allocated by the Administrator in a manner which will enable small-business concerns to participate equitably and proportionately in the conduct of the work of the Administration;

Contracts,
leases,
and other
transactions.

Small-business
participation.

(6) to use, with their consent, the service, equipment, personnel, and facilities of Federal and other agencies with or without reimbursement, and on a similar basis to cooperate with other public and private agencies and instrumentalities in the use of services, equipment, and facilities. Each department and agency of the Federal Government shall cooperate fully with the Administration in making its services, equipment, personnel, and facilities available to the Administration, and any such department or agency is authorized, notwithstanding any other provision of law, to transfer to or to receive from the Administration, without reimbursement, aeronautical and space vehicles, and supplies and equipment other than administrative supplies or equipment;

Agency
cooperation
in use of
services,
equipment,
etc.

(7) to appoint such advisory committees as may be appropriate for purposes of consultation and advice to the Administration in the performance of its functions;

Advisory
committees.

(8) to establish within the Administration such aliens without regard to statutory provisions provide for the greatest possible coordination of its activities under this Act with related scientific and other activities being carried on by other public and private agencies and organizations;

Coordination
with related
activities.

(9) to obtain services as authorized by section 3109 of title 5, United States Code, but at rates for individuals not to exceed the per diem rate equivalent to the rate for GS-18;⁵

Experts and
consultants.

⁵ Authorization to pay at rate not to exceed \$100 per diem for individuals was amended by Public Law 93-316, June 22, 1974, section 6 (88 Stat. 243).

**Employment
of aliens.**

(10) when determined by the Administrator to be necessary, and subject to such security investigations as he may determine to be appropriate, to employ aliens without regard to statutory provisions prohibiting payment of compensation to aliens;

NASA installations, visitor facilities, concessions.

(11) to provide by concession, without regard to section 321 of the Act of June 30, 1932 (47 Stat. 412; 40 U.S.C. 303b), on such terms as the Administrator may deem to be appropriate and to be necessary to protect the concessioner against loss of his investment in property (but not anticipated profits) resulting from the Administration's discretionary acts and decisions, for the construction, maintenance, and operation of all manner of facilities and equipment for visitors to the several installations of the Administration and, in connection therewith, to provide services incident to the dissemination of information concerning its activities to such visitors, without charge or with a reasonable charge therefor (with this authority being in addition to any other authority which the Administration may have to provide facilities, equipment, and services for visitors to its installations). A concession agreement under this paragraph may be negotiated with any qualified proposer following due consideration of all proposals received after reasonable public notice of the intention to contract. The concessioner shall be afforded a reasonable opportunity to make a profit commensurate with the capital invested and the obligations assumed, and the consideration paid by him for the concession shall be based on the probable value of such opportunity and not on maximizing revenue to the United States. Each concession agreement shall specify the manner in which the concessioner's records are to be maintained, and shall provide for access to any such records by the Administration and the Comptroller General of the United States for a period of five years after the close of the business year to which such records relate. A concessioner may be accorded a possessory interest, consisting of all incidents of ownership except legal title (which shall vest in the United States), in any structure, fixture, or improvement he constructs or locates upon land owned by the United States; and, with the approval of the Administration, such possessory interest may be assigned, transferred, encumbered, or relinquished by him, and, unless otherwise provided by contract, shall not be extinguished by the expiration or other termination

of the concession and may not be taken for public use without just compensation; ⁶

(12) with the approval of the President, to enter into cooperative agreements under which members of the Army, Navy, Air Force, and Marine Corps may be detailed by the appropriate Secretary for services in the performance of functions under this Act to the same extent as that to which they might be lawfully assigned in the Department of Defense;

(13) (A) to consider, ascertain, adjust, determine, settle, and pay, on behalf of the United States, in full satisfaction thereof, any claim for \$5,000 or less against the United States for bodily injury, death, or damage to or loss of real or personal property resulting from the conduct of the Administration's functions as specified in subsection (a) of this section, where such claim is presented to the Administration in writing within two years after the accident or incident out of which the claim arises; and

(B) if the Administration considers that a claim in excess of \$5,000 is meritorious and would otherwise be covered by this paragraph, to report the facts and circumstances thereof to the Congress for its consideration; ⁷ and

[(14)] Repealed.⁸

CIVILIAN-MILITARY LIAISON COMMITTEE⁹

SEC. 204. (a) There shall be a Civilian-Military Liaison Committee consisting of—

(1) a Chairman, who shall be the head thereof and who shall be appointed by the President, shall serve at the pleasure of the President.¹⁰

Claims against
United States.

42 U.S.C. 2474.
Establishment;
membership.

⁶ Public Law 93-74, July 23, 1973, section 6 (87 Stat. 174) added paragraph 11. Previously, sec. 402(a)(34) of the Dual Compensation Act (Public Law 88-448, August 19, 1964, 78 Stat. 495) repealed sec. 203(b)(11), 72 Stat. 431, which formerly authorized NASA "to employ retired commissioned officers of the armed forces of the United States and compensate them at the rate established for the positions occupied by them within the Administration, subject only to the limitations in pay set forth in sec. 212 of the Act of June 30, 1932, as amended (5 U.S.C. 59a)." The Dual Compensation Act (5 U.S.C. 3326, 3501, 3502, 5531-5533, 6303), effective Dec. 1, 1964, was designed to simplify, modernize and consolidate * * * the laws concerning the civilian employment of retired members of the uniformed services. * * * Pertinent portions of the Dual Compensation Act are set forth in Appendix B.

⁷ NASA, like other Federal agencies can settle claims under the Federal Tort Claims Act as amended (28 U.S.C. 2671-2680).

⁸ Public Law 91-646, January 2, 1971, section 220(a)(2) (84 Stat. 1903), repealed section 203(b)(14).

⁹ The Committee was abolished by Reorganization Plan No. 4 of 1965, effective July 27, 1965 (30 Federal Register 9353, July 28, 1965, 79 Stat. 1319), and its functions were transferred to the President.

¹⁰ Previous language in sec. 204(a)(1) (72 Stat. 431) providing for compensation of the Chairman at the rate of \$20,000 per annum was repealed on August 14, 1964, by the Federal Executive Salary Act of 1964, *supra*, sec. 305(13) (B) (78 Stat. 423). No substitute provision was made to replace the language repealed.

(2) one or more representatives from the Department of Defense and one or more representatives from each of the Departments of the Army, Navy, and Air Force, to be assigned by the Secretary of Defense to serve on the Committee without additional compensation; and

(3) representatives from the Administration, to be assigned by the Administrator to serve on the Committee without additional compensation, equal in number to the number of representatives assigned to serve on the Committee under paragraph (2).

Functions.

(b) The Administration and the Department of Defense, through the Liaison Committee, shall advise and consult with each other on all matters within their respective jurisdictions relating to aeronautical and space activities and shall keep each other fully and currently informed with respect to such activities.

Resolution of differences by President.

(c) If the Secretary of Defense concludes that any request, action, proposed action, or failure to act on the part of the Administrator is adverse to the responsibilities of the Department of Defense, or the Administrator concludes that any request, action, proposed action, or failure to act on the part of the Department of Defense is adverse to the responsibilities of the Administration, and the Administrator and the Secretary of Defense are unable to reach an agreement with respect thereto, either the Administrator or the Secretary of Defense may refer the matter to the President for his decision (which shall be final) as provided in section 201(e).

Chairman, service of active or retired officer.

(d) Notwithstanding the provisions of any other law, any active or retired officer of the Army, Navy, or Air Force may serve as Chairman of the Liaison Committee without prejudice to his active or retired status as such officer. Any such active officer serving as Chairman of the Liaison Committee shall receive, in addition to his pay and allowances, including special incentive pays, an amount equal to the difference between such pay and allowances, including special and incentive pays, and the compensation fixed by subsection (a)(1) for such Chairman. Any such retired officer serving as Chairman of the Liaison Committee shall receive the compensation fixed by subsection (a)(1) for such Chairman and his retired pay, subject to section 201 of the Dual Compensation Act.¹¹

¹¹ Sec. 304(d), 72 Stat. 432, was amended to read as above by the Dual Compensation Act, sec. 401(g), August 19, 1964 (78 Stat. 490). That part of sec. 204(d) which had referred to the compensation "fixed by subsec. (a)(1)" was repealed by sec. 305(13)(B) of the Federal Executive Salary Act of 1964, *supra* (78 Stat. 423), but it was reenacted by sec. 401(g) of the Dual Compensation Act. As noted above in footnote 10, there now is no provision fixing compensation in sec. 204(a)(1).

INTERNATIONAL COOPERATION

SEC. 205. The Administration, under the foreign policy guidance of the President, may engage in a program of international cooperation in work done pursuant to this Act, and in the peaceful application of the results thereof, pursuant to agreements made by the President with the advice and consent of the Senate. 42 U.S.C. 2475.

REPORTS TO THE CONGRESS

SEC. 206. (a) The President shall transmit to the Congress in January of each year a report, which shall include (1) a comprehensive description of the programmed activities and the accomplishments of all agencies of the United States in the field of aeronautics and space activities during the preceding calendar year, and (2) an evaluation of such activities and accomplishments in terms of the attainment of, or the failure to attain, the objectives described in section 102(c) of this Act. President's annual report of activities of all agencies.

(b) Any report made under this section shall contain such recommendations for additional legislation as the Administrator or the President may consider necessary or desirable for the attainment of the objectives described in section 102(c) of this Act.

(c) No information which has been classified for reasons of national security shall be included in any report made under this section, unless such information has been declassified by, or pursuant to authorization given by, the President.¹²

SEC. 207. Notwithstanding the provisions of this or any other law, the Administration may not report to a disposal agency as excess to the needs of the Administration any land having an estimated value in excess of \$50,000 which is owned by the United States and under the jurisdiction and control of the Administration, unless (A) a period of thirty days has passed after the receipt by the Speaker and the Committee on Science and Astronautics* of the House of Representatives and the President and the Committee on Aeronautical and Space Sciences of the Senate of a report by the Administrator or his designee containing a full and complete statement of the action proposed to be taken and the facts and circumstances relied upon in support of such action, or (B)

Approval by congressional committees.

¹² Public Law 92-68, August 6, 1971, section 7 (85 Stat. 177), repealed subsection (a) of section 206 and renumbered the remaining subsections.

* Note: The "Committee Reform Amendments of 1974," enacted October 8, 1974, changed the name of the Committee on Science and Astronautics of the House of Representatives to the Committee on Science and Technology.

each such committee before the expiration of such period has transmitted to the Administrator written notice to the effect that such committee has no objection to the proposed action.¹³

TITLE III—MISCELLANEOUS

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

Note under
42 U.S.C. 2472.
Termination.
Transfer of
functions.

SEC. 301. (a) The National Advisory Committee for Aeronautics, on the effective date of this section, shall cease to exist. On such date all functions, powers, duties, and obligations, and all real and personal property, personnel (other than members of the Committee), funds, and records of that organization, shall be transferred to the Administration.

Procurement.

(b) Section 2302 of title 10 of the United States Code is amended by striking out "or the Executive Secretary of the National Advisory Committee for Aeronautics." and inserting in lieu thereof "or the Administrator of the National Aeronautics and Space Administration."; and section 2303 of such title 10 is amended by striking out "The National Advisory Committee for Aeronautics." and inserting in lieu thereof "The National Aeronautics and Space Administration."

National
security;
suspension of
employees.

(c) The first section of the Act of August 26, 1950 (5 U.S.C. 22-1),¹⁴ is amended by striking out "the Director, National Advisory Committee for Aeronautics" and inserting in lieu thereof "the Administration of the National Aeronautics and Space Administration", and by striking out "or National Advisory Committee for Aeronautics" and inserting in lieu thereof "or National Aeronautics and Space Administration".

Unitary Wind
Tunnel Plan
Act of 1949.

(d) The Unitary Wind Tunnel Plan Act of 1949 (50 U.S.C. 511-515) is amended (1) by striking out "The National Advisory Committee for Aeronautics (hereinafter referred to as the 'Committee')" and inserting in lieu thereof "The Administrator of the National Aeronautics and Space Administration (hereinafter referred to as the 'Administrator')"; (2) by striking out "Committee" or "Committee's" wherever they appear and inserting in lieu thereof "Administrator" and "Administrators", respectively; and (3) by striking out "its" wherever it appears and inserting in lieu thereof "his".

Effective date.

(e)¹⁵ This section shall take effect ninety days after

¹³ Public Law 98-74, *supra*, section 7 (87 Stat. 175), added section 207.

¹⁴ The last part of the third proviso of the first section of the Act of August 26, 1950 (64 Stat. 476) was repealed by sec. 5 of Public Law 89-380, March 30, 1966 (80 Stat. 95). Other portions of the Act of August 26, 1950 (64 Stat. 476) were repealed by sec. 8(a) of Public Law 89-554 (80 Stat. 632) and replaced by 5 U.S.C. 3571, 5594, 7312, 7501(c), 7512(c), 7532). 5 U.S.C. 5594 was repealed by sec. 1(34)(B) of Public Law 90-83, September 11, 1967 (81 Stat. 201).

¹⁵ Effective close of business September 30, 1958, by virtue of proclamation of September 25, 1958. (23 Federal Register 7595, September 30, 1958.)

the date of the enactment of this Act, or on any earlier date on which the Administrator shall determine, and announce by proclamation published in the Federal Register, that the Administration has been organized and is prepared to discharge the duties and exercise the powers conferred upon it by this Act.

Publication
in F.R.

TRANSFER OF RELATED FUNCTIONS

SEC. 302. (a) Subject to the provisions of this section, the President, for a period of four years after the date of enactment of this Act, may transfer to the Administration any functions (including powers, duties, activities, facilities, and parts of functions) of any other department or agency of the United States, or of any officer or organizational entity thereof, which relate primarily to the functions, powers, and duties of the Administration as prescribed by section 203 of this Act. In connection with any such transfer, the President may, under this section or other applicable authority, provide for appropriate transfers of records, property, civilian personnel, and funds.¹⁶

42 U.S.C. 2453.
Transfers to
NASA.

(b) Whenever any such transfer is made before January 1, 1959, the President shall transmit to the Speaker of the House of Representatives and the President pro tempore of the Senate a full and complete report concerning the nature and effect of such transfer.

Reports to
Congress.

(c) After December 31, 1958, no transfer shall be made under this section until (1) a full and complete report concerning the nature and effect of such proposed transfer has been transmitted by the President to the Congress, and (2) the first period of sixty calendar days of regular session of the Congress following the date of receipt of such report by the Congress has expired without the adoption by the Congress of a concurrent resolution stating that the Congress does not favor such transfer.

ACCESS TO INFORMATION

SEC. 303. Information obtained or developed by the Administrator in the performance of his functions under this Act shall be made available for public inspection, except (A) information authorized or required by Federal statute to be withheld, and (B) information classified to protect the national security: Provided, That

42 U.S.C. 2454.
Public inspection;
exceptions.

¹⁶ Transfers pursuant to sec. 302 have been: Executive Order 10783, October 1, 1958, transferring from the Department of Defense the Project VANGUARD and other projects of Advanced Research Projects Agency and of Department of the Air Force relating to space activities; Executive Order 10793, December 3, 1958, transferring from Department of the Army the Jet Propulsion Laboratory (near Pasadena, California); Transfer Plan, delivered to Congress January 14, 1960, effective March 15, 1960, transferring from the Department of Defense the activities of development and research of space vehicle systems and specifically the Development Operations Division of the Army Ballistic Missile Agency (near Huntsville, Alabama).

nothing in this Act shall authorize the withholding of information by the Administrator from the duly authorized committees of the Congress.

SECURITY

42 U.S.C. 2455.
Requirements.

Investigations.

Referral to
F.B.I.

Access to AEC
restricted data.

SEC. 304. (a) The Administrator shall establish such security requirements, restrictions, and safeguards as he deems necessary in the interest of the national security. The Administrator may arrange with the Civil Service Commission for the conduct of such security or other personnel investigations of the Administration's officers, employees, and consultants, and its contractors and subcontractors and their officers and employees, actual or prospective, as he deems appropriate; and if any such investigation develops any data reflecting that the individual who is the subject thereof is of questionable loyalty, the matter shall be referred to the Federal Bureau of Investigation for the conduct of a full field investigation, the results of which shall be furnished to the Administrator.

(b) The Atomic Energy Commission may authorize any of its employees, or employees of any contractor, prospective contractor, licensee, or prospective licensee of the Atomic Energy Commission or any other person authorized to have access to Restricted Data by the Atomic Energy Commission under subsection 145b. of the Atomic Energy Act of 1954 (42 U.S.C. 2165(b)), to permit any member, officer, or employee of the Council, or the Administrator, or any officer, employee, member of any advisory committee, contractor, subcontractor, or officer or employee of a contractor or subcontractor of the Administration, to have access to Restricted Data relating to aeronautical and space activities which is required in the performance of his duties and so certified by the Council or the Administrator, as the case may be, but only if (1) the Council or Administrator or designee thereof has determined, in accordance with the established personnel security procedures and standards of the Council or Administration, that permitting such individual to have access to such Restricted Data will not endanger the common defense and security, and (2) the Council or Administrator or designee thereof finds that the established personnel and other security procedures and standards of the Council or Administration are adequate and in reasonable conformity to the standards established by the Atomic Energy Commission under section 145 of the Atomic Energy Act of 1954 (42 U.S.C. 2165). Any individual granted access to such Restricted Data pursuant to this subsection may exchange such Data with any individual who (A) is an officer or employee of the Department of Defense, or any department or agency thereof, or a member of the armed forces, or a contractor or subcontractor of any such department, agency, or armed

force, or an officer or employee of any such contractor or subcontractor, and (B) has been authorized to have access to Restricted Data under the provisions of section 143 of the Atomic Energy Act of 1954 (42 U.S.C. 2163).

(c) Chapter 37 of title 18 of the United States Code (entitled Espionage and Censorship) is amended by—

Espionage and
Censorship.

(1) adding at the end thereof the following new section:

“§ 799. Violation of regulations of National Aeronautics and Space Administration

Violation of
regulations.

“Whoever willfully shall violate, attempt to violate, or conspire to violate any regulation or order promulgated by the Administrator of the National Aeronautics and Space Administration for the protection or security of any laboratory, station, base or other facility, or part thereof, or any aircraft, missile, spacecraft, or similar vehicle, or part thereof, or other property or equipment in the custody of the Administration, or any real or personal property or equipment in the custody of any contractor under any contract with the Administration or any subcontractor of any such contractor, shall be fined not more than \$5,000, or imprisoned not more than one year, or both.”

Penalty.

(2) adding at the end of the sectional analysis thereof the following new item:

“§ 799. Violation of regulations of National Aeronautics and Space Administration.”

(d) Section 1114 of title 18 of the United States Code is amended by inserting immediately before “while engaged in the performance of his official duties” the following: “or any officer or employee of the National Aeronautics and Space Administration directed to guard and protect property of the United States under the administration and control of the National Aeronautics and Space Administration.”

Protection of
NASA officers
and employees.

(e) The Administrator may direct such of the officers and employees of the Administration as he deems necessary in the public interest to carry firearms while in the conduct of their official duties. The Administrator may also authorize such of those employees of the contractors and subcontractors of the Administration engaged in the protection of property owned by the United States and located at facilities owned by or contracted to the United States as he deems necessary in the public interest, to carry firearms while in the conduct of their official duties.

42 U.S.C. 2456.
Permission to
use firearms.

PROPERTY RIGHTS IN INVENTIONS

SEC. 305. (a) Whenever any invention is made in the performance of any work under any contract of the Administration, and the Administrator determines that—

42 U.S.C. 2457.
Inventions
made in
performance of
work under
contract.

(1) the person who made the invention was employed or assigned to perform research, development,

or exploration work and the invention is related to the work he was employed or assigned to perform, or that it was within the scope of his employment duties, whether or not it was made during working hours, or with a contribution by the Government of the use of Government facilities, equipment, materials, allocated funds, information proprietary to the Government, or services of Government employees during working hours; or

(2) the person who made the invention was not employed or assigned to perform research, development, or exploration work, but the invention is nevertheless related to the contract, or to the work or duties he was employed or assigned to perform, and was made during working hours, or with a contribution from the Government of the sort referred to in clause (1),

Exclusive property of United States; issuance of patent.

such invention shall be the exclusive property of the United States, and if such invention is patentable, a patent therefor shall be issued to the United States upon application made by the Administrator, unless the Administrator waives all or any part of the rights of the United States to such invention in conformity with the provisions of subsection (f) of this section.

Contract provisions for reporting inventions, etc.

(b) Each contract entered into by the Administrator with any party for the performance of any work shall contain effective provisions under which such party shall furnish promptly to the Administrator a written report containing full and complete technical information concerning any invention, discovery, improvement, or innovation which may be made in the performance of any such work.

Patent application.

(c) No patent may be issued to any applicant other than the Administrator for any invention which appears to the Commissioner of Patents to have significant utility in the conduct of aeronautical and space activities unless the applicant files with the Commissioner, with the application or within thirty days after request therefor by the Commissioner, a written statement executed under oath setting forth the full facts concerning the circumstances under which such invention was made and stating the relationship (if any) of such invention to the performance of any work under any contract of the Administration. Copies of each such statement and the application to which it relates shall be transmitted forthwith by the Commissioner to the Administrator.

Patent issuance to applicant.

(d) Upon any application as to which any such statement has been transmitted to the Administrator, the Commissioner may, if the invention is patentable, issue a patent to the applicant unless the Administrator, within ninety days after receipt of such application and statement, requests that such patent be issued to him on behalf

of the United States. If, within such time, the Administrator files such a request with the Commissioner, the Commissioner shall transmit notice thereof to the applicant, and shall issue such patent to the Administrator unless the applicant within thirty days after receipt of such notice requests a hearing before a Board of Patent Interferences on the question whether the Administrator is entitled under this section to receive such patent. The Board may hear and determine, in accordance with rules and procedures established for interference cases, the question so presented, and its determination shall be subject to appeal by the applicant or by the Administrator to the Court of Customs and Patent Appeals in accordance with procedures governing appeals from decisions of the Board of Patent Interferences in other proceedings.

Board of
Patent
Interferences.

(e) Whenever any patent has been issued to any applicant in conformity with subsection (d), and the Administrator thereafter has reason to believe that the statement filed by the applicant in connection therewith contained any false representation of any material fact, the Administrator within five years after the date of issuance of such patent may file with the Commissioner a request for the transfer to the Administrator of title to such patent on the records of the Commissioner. Notice of any such request shall be transmitted by the Commissioner to the owner of record of such patent, and title to such patent shall be so transferred to the Administrator unless within thirty days after receipt of such notice such owner of record requests a hearing before a Board of Patent Interferences on the question whether any such false representation was contained in such statement. Such question shall be heard and determined, and determination thereof shall be subject to review, in the manner prescribed by subsection (d) for questions arising thereunder. No request made by the Administrator under this subsection for the transfer of title to any patent, and no prosecution for the violation of any criminal statute, shall be barred by any failure of the Administrator to make a request under subsection (d) for the issuance of such patent to him, or by any notice previously given by the Administrator stating that he had no objection to the issuance of such patent to the applicant therefor.

False representations, request for transfer of title to patent.

(f) Under such regulations in conformity with this subsection as the Administrator shall prescribe, he may waive all or any part of the rights of the United States under this section with respect to any invention or class of inventions made or which may be made by any person or class of persons in the performance of any work required by any contract of the Administration of the Administrator determines that the interests of the United

Waiver of right to inventions.

Inventions and
Contributions
Board.

States will be served thereby. Any such waiver may be made upon such terms and under such conditions as the Administrator shall determine to be required for the protection of the interests of the United States. Each such waiver made with respect to any invention shall be subject to the reservation by the Administrator of an irrevocable, nonexclusive, nontransferable, royalty-free license for the practice of such invention throughout the world by or on behalf of the United States or any foreign government pursuant to any treaty or agreement with the United States. Each proposal for any waiver under this subsection shall be referred to an Inventions and Contributions Board which shall be established by the Administrator within the Administration. Such Board shall accord to each interested party an opportunity for hearing, and shall transmit to the Administrator its findings of fact with respect to such proposal and its recommendations for action to be taken with respect thereto.

License
regulations.

(g) The Administrator shall determine, and promulgate regulations specifying the terms and conditions upon which licenses will be granted by the Administration for the practice by any person (other than an agency of the United States) of any invention for which the Administrator holds a patent on behalf of the United States.

Protection
of title.

(h) The Administrator is authorized to take all suitable and necessary steps to protect any invention or discovery to which he has title, and to require that contractors or persons who retain title to inventions or discoveries under this section protect the inventions or discoveries to which the Administration has or may acquire a license of use.

Defense
agency.

(i) The Administration shall be considered a defense agency of the United States for the purpose of chapter 17 of title 35 of the United States Code.

Definitions.

(j) As used in this section—

(1) the term "people" means any individual, partnership, corporation, association, institution, or other entity.

(2) the term "contract" means any actual or proposed contract, agreement, understanding, or other arrangement, and includes any assignment, substitution of parties, or subcontract executed or entered into thereunder; and

(3) the term "made", when used in relation to any invention, means the conception or first actual reduction to practice of such invention.

CONTRIBUTIONS AWARDS

42 U.S.C. 2458.

SEC. 306. (a) Subject to the provisions of this section, the Administrator is authorized, upon his own initiative

or upon application of any person, to make a monetary award, in such amount and upon such terms as he shall determine to be warranted, to any person (as defined by section 305) for any scientific or technical contribution to the Administration which is determined by the Administrator to have significant value in the conduct of aeronautical and space activities. Each application made for any such award shall be referred to the Inventions and Contributions Board established under section 305 of this Act. Such Board shall accord to each such applicant an opportunity for hearing upon such application, and shall transmit to the Administrator its recommendation as to the terms of the award, if any, to be made to such applicant for such contribution. In determining the terms and conditions of any award the Administrator shall take into account—

Application.

Referral to
Inventions and
Contributions
Board; hear-
ing and rec-
ommendation.

Determination
by Adminis-
trator.

(1) the value of the contribution to the United States;

(2) the aggregate amount of any sums which have been expended by the applicant for the development of such contribution;

(3) the amount of any compensation (other than salary received for services rendered as an officer or employee of the Government) previously received by the applicant for or on account of the use of such contribution by the United States; and

(4) such other factors as the Administrator shall determine to be material.

(b) If more than one applicant under subsection (a) claims an interest in the same contribution, the Administrator shall ascertain and determine the respective interest of such applicants, and shall apportion any award to be made with respect to such contribution among such applicants in such proportions as he shall determine to be equitable. No award may be made under subsection (a) with respect to any contribution—

Apportionment
of award.

(1) unless the applicant surrenders, by such means as the Administrator shall determine to be effective, all claims which such applicant may have to receive any compensation (other than the award made under this section) for the use of such contribution or any element thereof at any time by or on behalf of the United States or by or on behalf of any foreign government pursuant to any treaty or agreement with the United States, within the United States or at any other place;

Surrender of
claims to
compensation.

(2) in any amount exceeding \$100,000, unless the Administrator has transmitted to the appropriate committees of the Congress a full and complete report concerning the amount and terms of, and the basis for, such proposed award, and thirty calendar days of regular session of the Congress have expired after receipt of such report by such committees.

Limitation of
amount; report
to Congress.

APPROPRIATIONS ¹⁷

42 U.S.C. 2459.
Authorization
of appropri-
ations.

SEC. 307. (a) There are hereby authorized to be appropriated such sums as may be necessary to carry out this Act, except that nothing in this Act shall authorize the appropriation of any amount for (1) the acquisition or condemnation of any real property, or (2) any other item of a capital nature (such as plant or facility acquisition, construction, or expansion) which exceeds \$250,000. Sums appropriated pursuant to this subsection for the construction of facilities, or for research and development activities, shall remain available until expended.

Funds for
emergency
repairs.

(b) Any funds appropriated for the construction of facilities may be used for emergency repairs of existing facilities when such existing facilities are made inoperative by major breakdown, accident, or other circumstances and such repairs are deemed by the Administrator to be of greater urgency than the construction of new facilities.

Expiration of
authorizations.

(c) Notwithstanding any other provision of law, the authorization of any appropriation to the Administration shall expire (unless an earlier expiration is specifically provided) at the close of the third fiscal year following the fiscal year in which the authorization was enacted, to the extent that such appropriation has not therefore actually been made.¹⁸ July 29, 1958.

¹⁷ For requirement of prior authorizing legislation, see Appendix A, Public Law 86-45, June 15, 1959 (73 Stat. 75, 42 U.S.C. 2460).

¹⁸ Subsec. (c) of sec. 307, added by sec. 6 of Public Law 88-113. September 6, 1963 (77 Stat. 144).

Public Law 87-624
87th Congress, H. R. 11040
August 31, 1962



An Act

76 STAT. 419.

To provide for the establishment, ownership, operation, and regulation of a commercial communications satellite system, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—SHORT TITLE, DECLARATION OF POLICY AND DEFINITIONS

SHORT TITLE

SEC. 101. This Act may be cited as the "Communications Satellite Act of 1962".

Communications
Satellite Act
of 1962.

DECLARATION OF POLICY AND PURPOSE

SEC. 102. (a) The Congress hereby declares that it is the policy of the United States to establish, in conjunction and in cooperation with other countries, as expeditiously as practicable a commercial communications satellite system, as part of an improved global communications network, which will be responsive to public needs and national objectives, which will serve the communication needs of the United States and other countries, and which will contribute to world peace and understanding.

(b) The new and expanded telecommunication services are to be made available as promptly as possible and are to be extended to provide global coverage at the earliest practicable date. In effectuating this program, care and attention will be directed toward providing such services to economically less developed countries and areas as well as those more highly developed, toward efficient and economical use of the electromagnetic frequency spectrum, and toward the reflection of the benefits of this new technology in both quality of services and charges for such services.

(c) In order to facilitate this development and to provide for the widest possible participation by private enterprise, United States participation in the global system shall be in the form of a private corporation, subject to appropriate governmental regulation. It is the intent of Congress that all authorized users shall have nondiscriminatory access to the system; that maximum competition be maintained in the provision of equipment and services utilized by the system; that the corporation created under this Act be so organized and operated as to maintain and strengthen competition in the provision of communications services to the public; and that the activities of the corporation created under this Act and of the persons or companies participating in the ownership of the corporation shall be consistent with the Federal antitrust laws.

(d) It is not the intent of Congress by this Act to preclude the use of the communications satellite system for domestic communication services where consistent with the provisions of this Act nor to preclude the creation of additional communications satellite systems, if required to meet unique governmental needs or if otherwise required in the national interest.

DEFINITIONS

SEC. 103. As used in this Act, and unless the context otherwise requires—

(1) the term "communications satellite system" refers to a system of communications satellites in space whose purpose is to relay telecommunication information between satellite terminal sta-

tions, together with such associated equipment and facilities for tracking, guidance, control, and command functions as are not part of the generalized launching, tracking, control, and command facilities for all space purposes;

(2) the term "satellite terminal station" refers to a complex of communication equipment located on the earth's surface, operationally connected with one or more terrestrial communication systems, and capable of transmitting telecommunications to or receiving telecommunications from a communications satellite system.

(3) the term "communications satellite" means an earth satellite which is intentionally used to relay telecommunication information;

(4) the term "associated equipment and facilities" refers to facilities other than satellite terminal stations and communications satellites, to be constructed and operated for the primary purpose of a communications satellite system, whether for administration and management, for research and development, or for direct support of space operations;

(5) the term "research and development" refers to the conception, design, and first creation of experimental or prototype operational devices for the operation of a communications satellite system, including the assembly of separate components into a working whole, as distinguished from the term "production," which relates to the construction of such devices to fixed specifications compatible with repetitive duplication for operational applications; and

(6) the term "telecommunication" means any transmission, emission or reception of signs, signals, writings, images, and sounds or intelligence of any nature by wire, radio, optical, or other electromagnetic systems.

(7) the term "communications common carrier" has the same meaning as the term "common carrier" has when used in the Communications Act of 1934, as amended, and in addition includes, but only for purposes of sections 303 and 304, any individual, partnership, association, joint-stock company, trust, corporation, or other entity which owns or controls, directly or indirectly, or is under direct or indirect common control with, any such carrier; and the term "authorized carrier", except as otherwise provided for purposes of section 304 by section 304(b)(1), means a communications common carrier which has been authorized by the Federal Communications Commission under the Communications Act of 1934, as amended, to provide services by means of communications satellites;

(8) the term "corporation" means the corporation authorized by title III of this Act.

(9) the term "Administration" means the National Aeronautics and Space Administration; and

(10) the term "Commission" means the Federal Communications Commission.

48 Stat. 1064.

47 USC 609.

TITLE II—FEDERAL COORDINATION, PLANNING, AND REGULATION

IMPLEMENTATION OF POLICY

SEC. 201. In order to achieve the objectives and to carry out the purposes of this Act—

(a) the President shall—

(1) aid in the planning and development and foster the execution of a national program for the establishment and operation, as expeditiously as possible, of a commercial communications satellite system;

(2) provide for continuous review of all phases of the development and operation of such a system, including the activities of a communications satellite corporation authorized under title "II of this Act;

(3) coordinate the activities of governmental agencies with responsibilities in the field of telecommunication, so as to insure that there is full and effective compliance at all times with the policies set forth in this Act;

(4) exercise such supervision over relationships of the corporation with foreign governments or entities or with international bodies as may be appropriate to assure that such relationships shall be consistent with the national interest and foreign policy of the United States;

(5) insure that timely arrangements are made under which there can be foreign participation in the establishment and use of a communications satellite system;

(6) take all necessary steps to insure the availability and appropriate utilization of the communications satellite system for general governmental purposes except where a separate communications satellite system is required to meet unique governmental needs, or is otherwise required in the national interest; and

(7) so exercise his authority as to help attain coordinated and efficient use of the electromagnetic spectrum and the technical compatibility of the system with existing communications facilities both in the United States and abroad.

(b) the National Aeronautics and Space Administration shall—

(1) advise the Commission on technical characteristics of the communications satellite system;

(2) cooperate with the corporation in research and development to the extent deemed appropriate by the Administration in the public interest;

(3) assist the corporation in the conduct of its research and development program by furnishing to the corporation, when requested, on a reimbursable basis, such satellite launching and associated services as the Administration deems necessary for the most expeditious and economical development of the communications satellite system;

(4) consult with the corporation with respect to the technical characteristics of the communications satellite system;

(5) furnish to the corporation, on request and on a reimbursable basis, satellite launching and associated services required for the establishment, operation, and maintenance of the communications satellite system approved by the Commission; and

(6) to the extent feasible, furnish other services, on a reimbursable basis, to the corporation in connection with the establishment and operation of the system.

(c) the Federal Communications Commission, in its administration of the provisions of the Communications Act of 1934, as amended, and as supplemented by this Act, shall—

48 Stat. 1064.

47 USC 609.

(1) insure effective competition, including the use of competitive bidding where appropriate, in the procurement by the corporation and communications common carriers of apparatus, equipment, and services required for the establishment and operation of the communications satellite system and satellite terminal stations; and the Commission shall consult with the Small Business Administration and solicit its recommendations on measures and procedures which will insure that small business concerns are given an equitable opportunity to share in the procurement program of the corporation for property and services, including but not limited to research, development, construction, maintenance, and repair.

(2) insure that all present and future authorized carriers shall have nondiscriminatory use of, and equitable access to, the communications satellite system and satellite terminal stations under just and reasonable charges, classifications, practices, regulations, and other terms and conditions and regulate the manner in which available facilities of the system and stations are allocated among such users thereof;

(3) in any case where the Secretary of State, after obtaining the advice of the Administration as to technical feasibility, has advised that commercial communication to a particular foreign point by means of the communications satellite system and satellite terminal stations should be established in the national interest, institute forthwith appropriate proceedings under section 214(d) of the Communications Act of 1934, as amended, to require the establishment of such communication by the corporation and the appropriate common carrier or carriers;

57 Stat. 12.

47 USC 214.

(4) insure that facilities of the communications satellite system and satellite terminal stations are technically compatible and interconnected operationally with each other and with existing communications facilities;

(5) prescribe such accounting regulations and systems and engage in such ratemaking procedures as will insure that any economies made possible by a communications satellite system are appropriately reflected in rates for public communication services;

(6) approve technical characteristics of the operational communications satellite system to be employed by the corporation and of the satellite terminal stations; and

(7) grant appropriate authorizations for the construction and operation of each satellite terminal station, either to the corporation or to one or more authorized carriers or to the corporation and one or more such carriers jointly, as will best serve the public interest, convenience, and necessity. In determining the public interest, convenience, and necessity the Commission shall authorize the construction and operation of such stations by communications common carriers or the corporation, without preference to either;

(8) authorize the corporation to issue any shares of capital stock, except the initial issue of capital stock referred to in section 304(a), or to borrow any moneys, or to assume any

obligation in respect of the securities of any other person, upon a finding that such issuance, borrowing, or assumption is compatible with the public interest, convenience, and necessity and is necessary or appropriate for or consistent with carrying out the purposes and objectives of this Act by the corporation;

(9) insure that no substantial additions are made by the corporation or carriers with respect to facilities of the system or satellite terminal stations unless such additions are required by the public interest, convenience, and necessity;

(10) require, in accordance with the procedural requirements of section 214 of the Communications Act of 1934, as amended, that additions be made by the corporation or carriers with respect to facilities of the system or satellite terminal stations where such additions would serve the public interest, convenience, and necessity; and

(11) make rules and regulations to carry out the provisions of this Act.

57 Stat. 11.
47 USC 214.

TITLE III—CREATION OF A COMMUNICATIONS SATELLITE CORPORATION

CREATION OF CORPORATION

SEC. 301. There is hereby authorized to be created a communications satellite corporation for profit which will not be an agency or establishment of the United States Government. The corporation shall be subject to the provisions of this Act and, to the extent consistent with this Act, to the District of Columbia Business Corporation Act. The right to repeal, alter, or amend this Act at any time is expressly reserved.

68 Stat. 177.
D. C. Code
29-901.

PROCESS OF ORGANIZATION

SEC. 302. The President of the United States shall appoint incorporators, by and with the advice and consent of the Senate, who shall serve as the initial board of directors until the first annual meeting of stockholders or until their successors are elected and qualified. Such incorporators shall arrange for an initial stock offering and take whatever other actions are necessary to establish the corporation, including the filing of articles of incorporation, as approved by the President.

DIRECTORS AND OFFICERS

SEC. 303. (a) The corporation shall have a board of directors consisting of individuals who are citizens of the United States, of whom one shall be elected annually by the board to serve as chairman. Three members of the board shall be appointed by the President of the United States, by and with the advice and consent of the Senate, effective the date on which the other members are elected, and for terms of three years or until their successors have been appointed and qualified, except that the first three members of the board so appointed shall continue in office for terms of one, two, and three years, respectively, and any member so appointed to fill a vacancy shall be appointed only for the unexpired term of the director whom he succeeds. Six members of the board shall be elected annually by those stockholders who are communications common carriers and six shall be elected annually by the other stockholders of the corporation. No stockholder who is a communications common carrier and no trustee for such a stockholder shall vote, either directly or indirectly, through the votes of subsidiaries or affiliated companies, nominees, or any persons subject to

68 Stat. 191.

his direction or control, for more than three candidates for membership on the board. Subject to such limitation, the articles of incorporation to be filed by the incorporators designated under section 302 shall provide for cumulative voting under section 27(d) of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-911(d)).

(b) The corporation shall have a president, and such other officers as may be named and appointed by the board, at rates of compensation fixed by the board, and serving at the pleasure of the board. No individual other than a citizen of the United States may be an officer of the corporation. No officer of the corporation shall receive any salary from any source other than the corporation during the period of his employment by the corporation.

FINANCING OF THE CORPORATION

SEC. 304. (a) The corporation is authorized to issue and have outstanding, in such amounts as it shall determine, shares of capital stock, without par value, which shall carry voting rights and be eligible for dividends. The shares of such stock initially offered shall be sold at a price not in excess of \$100 for each share and in a manner to encourage the widest distribution to the American public. Subject to the provisions of subsections (b) and (d) of this section, shares of stock offered under this subsection may be issued to and held by any person.

"Authorized
carrier."

(b)(1) For the purposes of this section the term "authorized carrier" shall mean a communications common carrier which is specifically authorized or which is a member of a class of carriers authorized by the Commission to own shares of stock in the corporation upon a finding that such ownership will be consistent with the public interest, convenience, and necessity.

(2) Only those communications common carriers which are authorized carriers shall own shares of stock in the corporation at any time, and no other communications common carrier shall own shares either directly or indirectly through subsidiaries or affiliated companies, nominees, or any persons subject to its direction or control. Fifty per centum of the shares of stock authorized for issuance at any time by the corporation shall be reserved for purchase by authorized carriers and such carriers shall in the aggregate be entitled to make purchases of the reserved shares in a total number not exceeding the total number of the nonreserved shares of any issue purchased by other persons. At no time after the initial issue is completed shall the aggregate of the shares of voting stock of the corporation owned by authorized carriers directly or indirectly through subsidiaries or affiliated companies, nominees, or any persons subject to their direction or control exceed 50 per centum of such shares issued and outstanding.

(3) At no time shall any stockholder who is not an authorized carrier, or any syndicate or affiliated group of such stockholders, own more than 10 per centum of the shares of voting stock of the corporation issued and outstanding.

(c) The corporation is authorized to issue, in addition to the stock authorized by subsection (a) of this section, nonvoting securities, bonds, debentures, and other certificates of indebtedness as it may determine. Such nonvoting securities, bonds, debentures, or other certificates of indebtedness of the corporation as a communications common carrier may own shall be eligible for inclusion in the rate base of the carrier to the extent allowed by the Commission. The vot-

ing stock of the corporation shall not be eligible for inclusion in the rate base of the carrier.

(d) Not more than an aggregate of 20 per centum of the shares of stock of the corporation authorized by subsection (a) of this section which are held by holders other than authorized carriers may be held by persons of the classes described in paragraphs (1), (2), (3), (4), and (5) of section 310(a) of the Communications Act of 1934, as amended (47 U.S.C. 310).

48 Stat. 1086.

(e) The requirement of section 45(b) of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-920(b)) as to the percentage of stock which a stockholder must hold in order to have the rights of inspection and copying set forth in that subsection shall not be applicable in the case of holders of the stock of the corporation, and they may exercise such rights without regard to the percentage of stock they hold.

68 Stat. 197.

(f) Upon application to the Commission by any authorized carrier and after notice and hearing, the Commission may compel any other authorized carrier which owns shares of stock in the corporation to transfer to the applicant, for a fair and reasonable consideration, a number of such shares as the Commission determines will advance the public interest and the purposes of this Act. In its determination with respect to ownership of shares of stock in the corporation, the Commission, whenever consistent with the public interest, shall promote the widest possible distribution of stock among the authorized carriers.

PURPOSES AND POWERS OF THE CORPORATION

SEC. 305. (a) In order to achieve the objectives and to carry out the purposes of this Act, the corporation is authorized to—

(1) plan, initiate, construct, own, manage, and operate itself or in conjunction with foreign governments or business entities a commercial communications satellite system;

(2) furnish, for hire, channels of communication to United States communications common carriers and to other authorized entities, foreign and domestic; and

(3) own and operate satellite terminal stations when licensed by the Commission under section 201(c) (7).

(b) Included in the activities authorized to the corporation for accomplishment of the purposes indicated in subsection (a) of this section, are, among others not specifically named—

(1) to conduct or contract for research and development related to its mission;

(2) to acquire the physical facilities, equipment and devices necessary to its operations, including communications satellites and associated equipment and facilities, whether by construction, purchase, or gift;

(3) to purchase satellite launching and related services from the United States Government;

(4) to contract with authorized users, including the United States Government, for the services of the communications satellite system; and

(5) to develop plans for the technical specifications of all elements of the communications satellite system.

(c) To carry out the foregoing purposes, the corporation shall have the usual powers conferred upon a stock corporation by the District of Columbia Business Corporation Act.

68 Stat. 177.
D. C. Code
29-901.

TITLE IV—MISCELLANEOUS

APPLICABILITY OF COMMUNICATIONS ACT OF 1934

SEC. 401. The corporation shall be deemed to be a common carrier within the meaning of section 3(h) of the Communications Act of 1934, as amended, and as such shall be fully subject to the provisions of title II and title III of that Act. The provision of satellite terminal station facilities by one communication common carrier to one or more other communications common carriers shall be deemed to be a common carrier activity fully subject to the Communications Act. Whenever the application of the provisions of this Act shall be inconsistent with the application of the provisions of the Communications Act, the provisions of this Act shall govern.

48 Stat. 1066.
47 USC 153.
48 Stat. 1070;
Ante, p. 64.
47 USC 201-
222, 301-397.

NOTICE OF FOREIGN BUSINESS NEGOTIATIONS

SEC. 402. Whenever the corporation shall enter into business negotiations with respect to facilities, operations, or services authorized by this Act with any international or foreign entity, it shall notify the Department of State of the negotiations, and the Department of State shall advise the corporation of relevant foreign policy considerations. Throughout such negotiations the corporation shall keep the Department of State informed with respect to such considerations. The corporation may request the Department of State to assist in the negotiations, and that Department shall render such assistance as may be appropriate.

SANCTIONS

SEC. 403. (a) If the corporation created pursuant to this Act shall engage in or adhere to any action, practices, or policies inconsistent with the policy and purposes declared in section 102 of this Act, or if the corporation or any other person shall violate any provision of this Act, or shall obstruct or interfere with any activities authorized by this Act, or shall refuse, fail, or neglect to discharge his duties and responsibilities under this Act, or shall threaten any such violation, obstruction, interference, refusal, failure, or neglect, the district court of the United States for any district in which such corporation or other person resides or may be found shall have jurisdiction, except as otherwise prohibited by law, upon petition of the Attorney General of the United States, to grant such equitable relief as may be necessary or appropriate to prevent or terminate such conduct or threat.

(b) Nothing contained in this section shall be construed as relieving any person of any punishment, liability, or sanction which may be imposed otherwise than under this Act.

(c) It shall be the duty of the corporation and all communications common carriers to comply, insofar as applicable, with all provisions of this Act and all rules and regulations promulgated thereunder.

REPORTS TO THE CONGRESS

SEC. 404. (a) The President shall transmit to the Congress in January of each year a report which shall include a comprehensive description of the activities and accomplishments during the preceding calendar year under the national program referred to in section 201(a)(1), together with an evaluation of such activities and accomplishments in terms of the attainment of the objectives of this Act and any recommendations for additional legislative or other action which the President may consider necessary or desirable for the attainment of such objectives.

(b) The corporation shall transmit to the President and the Congress, annually and at such other times as it deems desirable, a comprehensive and detailed report of its operations, activities, and accomplishments under this Act.

(c) The Commission shall transmit to the Congress, annually and at such other times as it deems desirable, (i) a report of its activities and actions on anticompetitive practices as they apply to the communications satellite programs; (ii) an evaluation of such activities and actions taken by it within the scope of its authority with a view to recommending such additional legislation which the Commission may consider necessary in the public interest; and (iii) an evaluation of the capital structure of the corporation so as to assure the Congress that such structure is consistent with the most efficient and economical operation of the corporation.

Approved August 31, 1962, 9:51 a.m.

AMENDMENT OF SECTION 303 (a)

Public Law 91-3

AN ACT

March 12, 1969
[S.17]

To amend the Communications Satellite Act of 1962 with respect to the election of the board of directors of the Communications Satellite Corporation.

Communications
Satellite Act of
1962, amendment,
76 Stat. 423.
Board of direc-
tors.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That subsection (a) of section 303 of the Communications Satellite Act of 1962 (47 U.S.C. 733(a)) is amended to read as follows:

"SEC. 303. (a) The corporation shall have a board of directors consisting of fifteen individuals who are citizens of the United States, of whom one shall be elected annually by the board to serve as chairman. Three members of the board shall be appointed by the President of the United States, by and with the advice and consent of the Senate, effective the date on which the other members are elected, and for terms of three years or until their successors have been appointed and qualified, and any member so appointed to fill a vacancy shall be appointed only for the unexpired term of the director whom he succeeds. The remaining twelve members of the board shall be elected annually by the stockholders. Six of such members shall be elected by those stockholders who are not communications common carriers, and the remaining six such members shall be elected by the stockholders who are communications common carriers, except that if the number of shares of the voting capital stock of the corporation issued and outstanding and owned either directly or indirectly by communications common carriers as of the record date for the annual meeting of stockholders is less than 45 per centum of the total number of shares of the voting capital stock of the corporation issued and outstanding, the number of members to be elected at such meeting by each group of stockholders shall be determined in accordance with the following table:

When the number of shares of the voting capital stock of the corporation issued and outstanding and owned either directly or indirectly by communications common carriers is less than—	But not less than—	The number of members which stockholders who are communications common carriers are entitled to elect shall be—		And the number of members of which other stockholders are entitled to elect shall be—	
45 per centum.....	40 per centum.....	5		7	
40 per centum.....	35 per centum.....	4		8	
35 per centum.....	25 per centum.....	3		9	
25 per centum.....	15 per centum.....	2		10	
15 per centum.....	8 per centum.....	1		11	
8 per centum.....		0		12	

No stockholder who is a communications common carrier and no trustee for such a stockholder shall vote, either directly or indirectly, through the votes of subsidiaries or affiliated companies, nominees, or any persons subject to his direction or control, for more than three candidates for membership on the board, except that in the event the number of shares of the voting capital stock of the corporation issued and outstanding and owned either directly or indirectly by communications common carriers as of the record date for the annual meeting is less than 8 per centum of the total number of shares of the voting capital stock of the corporation issued and outstanding, any stockholder who is a communications common carrier shall be entitled to vote at such meeting for candidates for membership on the board in the same manner as all other stockholders. Subject to the foregoing limitations, the articles of incorporation of the corporation shall provide for cumulative voting under section 27(d) of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-911(d)). The articles of incorporation of the corporation may be amended, altered, changed, or repealed by a vote of not less than 66⅔ per centum of the outstanding shares of the voting capital stock of the corporation owned by stockholders who are communications common carriers and by stockholders who are not communications common carriers, voting together, if such vote complies with all other requirements of this Act and of the articles of incorporation of the corporation with respect to the amendment, alteration, change, or repeal of such articles. The corporation may adopt such bylaws as shall, notwithstanding the provisions of section 36 of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-916d), provide for the continued ability of the board to transact business under such circumstances of national emergency as the President of the United States, or the officer designated by him, may determine, after February 18, 1969, would not permit a prompt meeting of a majority of the board to transact business."

68 Stat. 191.

68 Stat. 193.

SEC. 2. As promptly as the board of directors of the Communications Satellite Corporation shall determine to be practical after the date of the amendment of this Act, a meeting of the stockholders of the corporation shall be called for the purpose of electing twelve members of the board in accordance with subsection (a) of section 303 of the Communications Satellite Act of 1962 as amended by the first section of this Act. The members of the board elected at such meeting shall serve until the next annual meeting of stockholders or until their successors have been elected and qualified.

SEC. 3. The status and authority of the members of the board of directors of the Communications Satellite Corporation who were elected to the board before the date of the enactment of this Act and who are serving as members of the board on such date shall not be in any way impaired or affected until their successors have been elected and qualified in accordance with section 2 of this Act.

Approved March 12, 1969.

83 STAT. 5

68 Stat. 191. vide for cumulative voting under section 27(d) of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-911(d)). The articles of incorporation of the corporation may be amended, altered, changed, or repealed by a vote of not less than 66 $\frac{2}{3}$ per centum of the outstanding shares of the voting capital stock of the corporation owned by stockholders who are communications common carriers and by stockholders who are not communications common carriers, voting together, if such vote complies with all other requirements of this Act and of the articles of incorporation of the corporation with respect to the amendment, alteration, change, or repeal of such articles. The corporation may adopt such bylaws as shall, notwithstanding the provisions of section 36 of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-916d), provide for the continued ability of the board to transact business under such circumstances of national emergency as the President of the United States, or the officer designated by him, may determine, after February 18, 1969, would not permit a prompt meeting of a majority of the board to transact business."

68 Stat. 193.

SEC. 2. As promptly as the board of directors of the Communications Satellite Corporation shall determine to be practical after the date of the amendment of this Act, a meeting of the stockholders of the corporation shall be called for the purpose of electing twelve members of the board in accordance with subsection (a) of section 303 of the Communications Satellite Act of 1962 as amended by the first section of this Act. The members of the board elected at such meeting shall serve until the next annual meeting of stockholders or until their successors have been elected and qualified.

SEC. 3. The status and authority of the members of the board of directors of the Communications Satellite Corporation who were elected to the board before the date of the enactment of this Act and who are serving as members of the board on such date shall not be in any way impaired or affected until their successors have been elected and qualified in accordance with section 2 of this Act.

Approved March 12, 1969.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 91-24 accompanying H. R. 4214 (Comm. on Interstate and Foreign Commerce).

SENATE REPORT No. 91-6 (Comm. on Commerce).

CONGRESSIONAL RECORD, Vol. 115 (1969):

Jan. 31: Considered and passed Senate.

Feb. 19: Considered and passed House, amended, in lieu of H. R. 4214.

Feb. 25: Senate concurred in House amendment.

NASA INTERNATIONAL PROGRAMS

Values, Objectives, and Guidelines

VALUES:

- (1) STIMULATION OF SCIENTIFIC INTEREST AND TECHNICAL COMPETENCE ABROAD.
- (2) ENLARGED POTENTIAL FOR CONTRIBUTIONS TO THE ART.
- (3) ACCESS TO FOREIGN AREAS FOR MEASUREMENTS OF GLOBAL CHARACTER OR SPECIAL GEOGRAPHIC SIGNIFICANCE.
- (4) ENHANCEMENT OF SATELLITE EXPERIMENTS BY FOREIGN GROUND-SUPPORT PROGRAMS.
- (5) DEVELOPMENT OF COST-SHARING AND COMPLEMENTARY SPACE PROGRAMS.
- (6) EXTENSION OF TIES AMONG SCIENTIFIC AND NATIONAL COMMUNITIES.

OBJECTIVES:

THE INTERNATIONAL ACTIVITIES OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION ARE PLANNED TO DEMONSTRATE THE PEACEFUL PURPOSES OF SPACE RESEARCH AND EXPLORATION BY THE UNITED STATES, TO PROVIDE OPPORTUNITIES FOR THE PARTICIPATION OF SCIENTISTS AND AGENCIES OF OTHER COUNTRIES IN THE TASK OF INCREASING MAN'S UNDERSTANDING AND USE OF HIS SPATIAL ENVIRONMENT, AND TO SUPPORT OPERATING REQUIREMENTS FOR THE LAUNCHING AND OBSERVATION OF SPACE VEHICLES AND CRAFT.

GUIDELINES:

NASA'S INTERNATIONAL ACTIVITIES FOLLOW GUIDELINES WHICH RECOGNIZE THE INTERESTS OF U.S. AND FOREIGN SCIENTISTS, ESTABLISH A BASIS FOR SOUND PROGRAMS OF MUTUAL VALUE, AND CONTRIBUTE SUBSTANTIVELY AND LITERALLY TO THE OBJECTIVES OF INTERNATIONAL COOPERATION. THE GUIDELINES PROVIDE FOR:

- (1) DESIGNATION BY EACH PARTICIPATING GOVERNMENT OF A CENTRAL CIVILIAN AGENCY FOR THE NEGOTIATION AND SUPERVISION OF JOINT EFFORTS.
- (2) AGREEMENT UPON SPECIFIC PROJECTS RATHER THAN GENERALIZED PROGRAMS.
- (3) ACCEPTANCE OF FINANCIAL RESPONSIBILITY BY EACH PARTICIPATING COUNTRY FOR ITS OWN CONTRIBUTIONS TO JOINT PROJECTS.
- (4) PROJECTS OF SCIENTIFIC VALIDITY AND MUTUAL INTEREST.
- (5) GENERAL PUBLICATION OF SCIENTIFIC RESULTS.

OCTOBER 9, 1972

Office of the White House Press Secretary

THE WHITE HOUSE

The President today announced a policy whereby the United States will provide launch assistance to other countries and international organizations for satellite projects which are for peaceful purposes and are consistent with obligations under relevant international arrangements. Launches will be provided on a non-discriminatory, reimbursable basis.

The President's decision extends to other countries the assurances given to the member states of the European Space Conference in September 1971. These assurances recognize the legitimate interests of European countries in being able to place satellites into space under non-discriminatory conditions. This action was in keeping with the President's recognition of the desirability of mutually beneficial cooperation in space and the importance of such cooperation as a new dimension in the further development of the Atlantic partnership.

Addressing the United Nations General Assembly nearly three years ago, the President noted particularly that "of all of man's great enterprises, none lends itself more logically or more compellingly to international cooperation than the venture into space."

In establishing today a global launch assurance policy, the President affirms the need for a dependable capability which would make it possible for nations to have access under equal conditions to the advantages which accrue through space applications. This global launch assurance policy further manifests United States faith that, in the language of the 1967 Outer Space Treaty, "...the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries... and shall be the province of all mankind."

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MEMORANDUM OF UNDERSTANDINGBETWEEN THEBRAZILIAN COMMISSION FOR SPACE ACTIVITIES (COBAE)AND THEUNITED STATES NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

1. The purposes of this agreement are to provide continuation of the collaborative experimental program in the field of remote sensing surveys of earth resources between COBAE and NASA and to set forth the responsibilities of the parties and the procedures for providing for (a) direct access, by a ground station in operation in Brazil by the Institute for Space Research (INPE) of the Brazilian National Council on Scientific and Technological Development (CNPq), to NASA LANDSAT-1 and LANDSAT-2 satellite data and to the data from any future LANDSAT experimental satellites which NASA may launch, and (b) availability to NASA of data acquired by the station pursuant to (a) above, subject to the provisions which follow. COBAE hereby designates INPE through CNPq as the Brazilian operational agency.

2. For its part, COBAE and the operational agency, CNPq/INPE, will use their best efforts to:

(a) Continue to operate INPE ground station facilities at Cuiabá and Cachoeira Paulista for acquisition and

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processing of LANDSAT data as well as other non-space data of interest to the CNPq/INPE entirely at its own cost, including the cost of the necessary communication links with the NASA LANDSAT Operations Control Center/NASA Data Processing Facility (OCC/NDPF) at the Goddard Space Flight Center.

(b) Provide, as described below, processed data (imagery and digital products) to LANDSAT Principal Investigators duly selected by NASA whose test sites are in range of the Brazilian data acquisition station for the period of coverage promised to them and under the same conditions as NASA provides data to Principal Investigators. Should another country in the region operate LANDSAT facilities, COBAE's obligation to provide data to Principal Investigators in that country will terminate as soon as these facilities are capable of providing this service. CNPq/INPE will continue to serve Principal Investigators in countries within range of the Cuiabá station which do not operate LANDSAT facilities unless and until alternative arrangements are concluded.

(c) Provide, to the best of its ability, any support requested by NASA in a spacecraft emergency condition, such as the provision of data indicated in paragraph 2 (e) below should the on-board tape recorders fail.

(d) Provide quarterly reports in English to NASA on the progress and results of the CNPq/INPE experimental program with respect especially to the ability to apply data and analysis obtained to real-time decision making, and the principal applications made.

(e) Make available to NASA, on a cost-free basis and in the NASA-preferred format (negative imagery format with identifying annotation), such copies of the LANDSAT data it acquires and processes as NASA may request in reasonable quantities (except in emergency conditions as noted in paragraph 2 (c) above). These data provided to NASA by CNPq/INPE will be made available to the public from US sources on precisely the same terms as data acquired directly by NASA. These provisions apply as well to selected duplicate computer compatible tapes. Public requests for data are covered in item 5 (f). Coordination among other facilities operating under agreement with NASA would be highly desirable. CNPq/INPE may consider the possibility of processing data acquired by other stations in Latin America at their request and at costs to be established.

(f) Include as output data from the Cachoeira Paulista station computer compatible tapes and 70mm or 9 inch roll film.

3. For its part, NASA will use its best efforts to:

(a) Program LANDSAT-1, LANDSAT-2 and any subsequent experimental LANDSAT-type satellite to acquire data over areas accessible for direct read-out by the Brazilian station. The frequency of such programming will be subject to mutual agreement by the Project Managers (see below).

(b) Provide to CNPq/INPE orbital elements for calculating the antenna pointing angles necessary to acquire the LANDSAT spacecraft transmitted signal and for use in processing the data acquired.

(c) Make available, for comparison purpose, a limited number of selected NASA data tapes covering portions of the area accessible to the Cuiabá station.

(d) Keep CNPq/INPE informed of other prospective LANDSAT ground station facilities in the area so that regional coordination can be effected.

4. To implement this agreement and continuation of the program, CNPq/INPE and NASA will each designate a Project Manager to be responsible for coordinating the agreed functions and responsibilities of each side with the other. The Project Managers will be co-chairmen of a Joint Working Group which will be the principal instrument for assuring the execution of the project and for keeping both sides continuously informed of the project status. The Joint Working Group may establish such committees as required to carry out the project.

5. The following additional understandings are confirmed:

(a) CNPq/INPE will resolve any radio frequency difficulties in the region to the satisfaction of the parties concerned so this cooperation can proceed without difficulty.

(b) The responsibility for spacecraft control, health and status will remain with NASA throughout the program.

(c) This agreement assures CNPq/INPE access to LANDSAT-1 and/or LANDSAT-2 without charge until 30 June 1976. It is understood, however, that NASA will thereafter, after consultation with COBAE, introduce a cost-sharing arrangement, such as a user's fee, which has been generally established for participating ground stations.

(d) It is understood at this stage that NASA cannot make a firm commitment regarding the launching of future LANDSAT-type satellites.

(e) Decisions taken by the International Telecommunications Union require that radio frequencies for future operational LANDSAT-type satellites will differ from those currently used for experimental satellites.

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(f) For the purposes of this agreement it is understood that CNPq/INPE and other Brazilian Government Agencies participating in the program will pursue a policy of dissemination of LANDSAT data comparable to the dissemination policy maintained by NASA and the other US agencies participating in the program. CNPq/INPE will thus ensure unrestricted public availability of all earth resources satellite data of areas within range of the Brazilian ground station at charges similar to the price schedule to be established by the EROS Data Center, and will provide, on the same basis as NASA, processed LANDSAT data required by Principal Investigators as selected under the NASA LANDSAT Investigations Program, and whose test sites are in range of Brazil's ground station.

(g) Catalog listings of LANDSAT data processed by the Cachoeira Paulista station as well as ground station tape recorder logs will be provided to NASA on a monthly basis. Also NASA will use its best efforts to advise CNPq/INPE of requests received at the EROS Data Center for data on Brazil.

(h) Training and exchange of technical personnel will take place as mutually agreed.

(i) CNPq/INPE and NASA will freely share and exchange technical information as mutually agreed and consistent with the export regulations of the two countries.

(j) It is understood that this project is experimental in character and subject to change in accordance with changes in technical requirements and opportunities.

(k) CNPq/INPE and NASA may each release general information to the public regarding the conduct of their own portion of the project as desired and, insofar as participation of the other agency is concerned, after suitable coordination.

Approved
(l) CNPq/INPE and NASA will assure that the project is appropriately recorded in still and motion picture photography and that this photography is made available to the other agency upon request for public information purposes.

(m) It is understood that the ability of CNPq/INPE and NASA to carry out the responsibilities of this agreement is subject to the availability of appropriated funds.

6. It is understood that the availability of data under any of the above paragraphs shall not prejudice any rights and obligations of the parties under international law which may be established in the future with respect to remote sensing activities.

7. This Memorandum of Understanding shall continue in force for two years, subject to extension as may be agreed by COBAE and NASA.

8. This Memorandum of Understanding shall enter into force upon an exchange of notes between the Governments confirming its provisions.

Antônio Jorge Costa
 For the Brazilian Commission
 for Space Activities (COBAE)

John Hugh Crumrine
 For the National Aeronautics and
 Space Administration (NASA)

14 de maio de 1976

Date

May 14, 1976

Date

INTERVENIENT:

Academy
 For the National Council on
 Scientific and Technological
 Development (CNPq)

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MEMORANDUM OF UNDERSTANDING
BETWEEN THE
ITALIAN TELESPAZIO (S.P.A.)
AND THE
UNITED STATES NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

1, The purposes of this agreement are to set forth the responsibilities of the parties and the procedures for providing for (a) direct access, by a ground station to be built and operated in Italy by Telespazio in a project designated TERRA, to NASA ERTS-1 and ERTS-B satellite data and to the data from any future ERTS experimental satellites which NASA may launch, and (b) availability to NASA of data acquired by the Telespazio station pursuant to (a) above, subject to the provisions which follow.

2, For its part, Telespazio will use its best efforts to:

(a) Develop and operate a facility at Fucino for acquisition and processing of ERTS data as well as other non-space data of interest to Telespazio entirely at its own cost, including the cost of the necessary communication links with the NASA ERTS OCC/NDPF (Operations Control Center/NASA Data Processing Facility) at the Goddard Space Flight Center.

(b) Provide during Phase B, as described below, processed data to ERTS Principal Investigators duly selected by NASA whose test sites are in range of the Telespazio data acquisition station for the period of coverage promised to them and under the same conditions as NASA provides data to Principal Investigators. Should another country in the region establish ERTS facilities, Telespazio's obligation to provide data to Principal Investigators in that country will terminate as soon as the new facilities are capable of providing this service. Telespazio will continue to serve Principal Investigators in countries within range of the Telespazio station which do not have ERTS facilities unless and until alternative arrangements are concluded.

(c) Provide, to the best of its ability, any support requested by NASA in a spacecraft emergency condition, such as the provision of data indicated in paragraph 2(e) below should the on-board tape recorders fail.

(d) Provide quarterly reports in English to NASA on the progress and results of the TERRA experiment with respect especially to the experience with a multi-purpose, flexible facility, the ability to apply data and analyses obtained to real-time decision making, and the principal applications made.

(e) Make available to NASA, on a cost-free basis and in the NASA-preferred format (negative imagery format with identifying annotation) such copies of the ERTS data it acquires and processes as NASA may request in reasonable quantities (except in emergency conditions as noted in paragraph 2(c) above). These data provided to NASA by Telespazio will be made available to the public from U.S. sources on precisely the same terms as data acquired directly by NASA. These provisions apply as well to selected duplicate compatible tapes. Public requests (for data) from the area covered by the Fucino station will be referred as appropriate to Telespazio or to other regional facilities which may be established in the area. Coordination among such facilities would be highly desirable.

(f) Include as output data from the Fucino station Computer Compatible Tapes (CCT's) and 70mm roll film.

3. For its part, NASA will use its best efforts to:

(a) Program ERTS-1 and any subsequent experimental ERTS-type satellites to acquire data in areas accessible for direct read-out by the Telespazio station. The frequency of such programming will be subject to mutual agreement by the Project Managers (see below). It will be limited to test purposes in Phase A and expanded as agreed in Phase B.

(b) Provide to Telespazio as necessary antenna pointing elements for acquisition of the ERTS spacecraft transmitted signal and updated definitive orbital information for use in processing the data.

(c) Process, on a time-available basis and as may be agreed by the Project Managers, a limited number of data tapes acquired by Telespazio in Phase A for initial evaluation and calibration of the station's performance.

(d) Continue to provide, during Phase A, ERTS data to NASA-selected Italian Principal Investigators to the extent of the time-coverage promised for them.

(e) Make available, for comparison purposes, a limited number of selected NASA data tapes covering portions of the area accessible to the Telespazio station.

(f) Keep Telespazio informed of other prospective ERTS facilities in the area so that regional coordination can be effected.

4. The course of the project will be divided into two phases. Phase A is for the test and checkout of the Fucino station. Phase B is for the following period of routine data acquisition and processing at the Fucino station. Phase A will begin when the Project Managers agree on the readiness of the technical and operational interfaces required to carry out the project and on a schedule for accomplishing Phases A and B. Phase A will be concluded and Phase B begun by mutual agreement of the Project Managers.

5. To implement the agreement, Telespazio and NASA will each designate Project Managers to be responsible for coordinating the agreed functions and responsibilities of each side with the other. The Project Managers will be co-chairmen of a Joint Working Group (JWG) which will be the principal instrument for assuring the execution of the TERRA project and for keeping both sides continuously informed of the project status. The Joint Working Group may establish such committees as required to carry out the project.

6. The following additional understandings are confirmed:

(a) Telespazio will resolve any radio frequency difficulties to the satisfaction of the parties concerned so this cooperation can proceed without difficulty.

(b) The responsibility for spacecraft control, health and status will remain with NASA throughout the program.

(c) There will be no exchange of funds between Telespazio and NASA for ERTS-1 operations. This agreement assures Telespazio access to the ERTS-B satellite throughout its design life of one year without charge by NASA. It is understood, however, that NASA may thereafter establish some cost-sharing arrangement, such as users' fees, for participating ground stations.

(d) It is understood at this stage that NASA cannot make a firm commitment for future ERTS-type satellites.

(e) Decisions taken by the International Telecommunications Union require that radio frequencies for future operational ERTS satellites will differ from those currently used for experimental satellites.

(f) It is understood that Telespazio and the other Italian agencies participating in the program will pursue an ERTS open-data policy comparable to that of NASA and other U.S. agencies participating in the program, particularly with respect to the public availability of data. Telespazio will thus ensure unrestricted public availability of the earth resources satellite data at a fair and reasonable charge based on actual cost.

(g) Training and exchange of technical personnel will take place as mutually agreed.

(h) Telespazio and NASA will freely share and exchange data and technical information as mutually agreed and consistent with the laws and regulations of the two countries.

(i) It is understood that this project is experimental in character and subject to change in accordance with changes in technical requirements and opportunities.

(j) Telespazio and NASA will use their best efforts to arrange for free customs clearance for equipment required in the program.

(k) Telespazio and NASA may each release general information to the public regarding the conduct of their own portion of the project as desired and, insofar as participation of the other agency is concerned, after suitable coordination.

(l) Telespazio and NASA will assure that the project is appropriately recorded in still and motion picture photography and that the photography is made available to the other agency upon request for public information purposes.

(m) It is understood that the ability of Telespazio and NASA to carry out the responsibilities of this agreement is subject to the availability of appropriated funds.

7. This Memorandum of Understanding shall enter into force upon signature by Telespazio and NASA and shall continue in force for four years, subject to extension as may be agreed by Telespazio and NASA.

For Telespazio
TELESPAZIO

S.p.A. per le Comunicazioni Spaziali

Vicepresidente - Amministratore Delegato

Giuseppe P. P. P.

Date

9-V-74

For the National Aeronautics
and Space Administration

James C. Fletcher
James C. Fletcher
Administrator

Date

4/16/74

PREVIOUS STAFF REPORTS OF THE COMMITTEE ON AERONAUTICAL AND SPACE
SCIENCES CONCERNING INTERNATIONAL SPACE ACTIVITIES

1. Radio Frequency Control in Space Telecommunications By Edward Wenk, Jr. Committee print. 86th Congress, 2d session. March 19, 1960. 235 p.
2. Policy Planning for Space Telecommunications. Staff Report. Committee print. 86th Congress, 2d session. December 4, 1960. 207 p.
3. Legal Problems of Space Exploration; A Symposium. By Eilene Galloway. Senate Document No. 26. 87th Congress, 1st session. March 22, 1961. 1392 p. This followed Space Law: A Symposium edited by Eilene Galloway as a committee print for the Senate Special Committee on Space and Astronautics, 1958.
4. Communication Satellites: Technical, Economic, and International Developments. Staff Report. Committee print. 87th Congress, 2d session. February 25, 1962. 287 p.
5. Soviet Space Programs: Organization, Plans, Goals, and International Implications. Staff Report. Committee print. 87th Congress, 2d session. May 31, 1962. 399 p.
6. Documents on International Aspects of the Exploration and Use of Outer Space, 1954-1962. Staff Report. Senate Document No. 18. 88th Congress, 1st session. May 9, 1963. 407 p.
7. United States International Space Programs: Texts of Executive Agreements, Memoranda of Understanding, and other International Arrangements, 1959-1965. Edited by Eilene Galloway. Senate Document No. 44. 89th Congress, 1st session. July 30, 1965. 575 p.
8. International Cooperation and Organization for Outer Space. By Eilene Galloway. Senate Document No. 56. 89th Congress, 1st session. August 12, 1965. 580 p.
9. Space Treaty Proposals by the United States and U.S.S.R. By Eilene Galloway. Committee print. 89th Congress, 2d session. July 1966. 52 p.
10. Soviet Space Programs, 1962-65; Goals and Purposes, Achievements, Plans, and International Implications. Coordinated by Joseph G. Whelan. Committee print. 89th Congress, 2d session. December 30, 1966. 920 p.
11. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies; Analysis and Background Data. By Eilene Galloway. Committee print. 90th Congress, 1st session. March 1967. 84 p.
12. Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space: Analysis and Background. Data. By Eilene Galloway. Committee print. 90th Congress, 2d session. July 16, 1968. 31 p.
13. Soviet Space Programs, 1966-70: Goals and Purposes, Organization, Resources, Facilities and Hardware, Manned and Unmanned Flight Programs, Bioastronautics, Civil and Military Applications, Projections of Future Plans, Attitudes Toward International Cooperation and Space Law. Staff report prepared for the use of the Committee by the Science Policy Research Division and Foreign Affairs Division of the Congressional Research Service and the European Law Division of the Law Library, Library of Congress. By and under the direction of Dr. Charles S. Sheldon, II. 92d Congress, 1st session. Senate document No. 92-51. December 1971. 670 p.
14. Soviet Space Programs, 1971: A supplement to the corresponding report covering the period 1966-70. Staff report prepared for the use of the Committee by the Science Policy Research Division, Congressional Research Service, Library of Congress. By Dr. Charles S. Sheldon II, primary author, and Mrs. Barbara DeVoe working in cooperation on the project. Committee print. 92d Congress, 2d session. April 1972. 74 p.
15. International Cooperation in Outer Space: A symposium. Edited by Eilene Galloway. Senate Document No. 92-57, 92d Congress, 1st session. December 1971. 732 p.
16. Convention on International Liability for Damage Caused by Space Objects: Analysis and Background Data. Staff report by Daniel Hill Zafren. Committee print. 92d Congress, 2d session. May 1972. 76 p.

17. Convention on Registration of Objects Launched into Outer Space: Analysis and Background Data. Committee print. 94th Congress, 1st session. July 1975. 66 p.
18. The International Legal and Institutional Aspects of the Stratosphere Ozone Problem. Staff report by Dr. Carl Q. Christol. Committee print, 94th Congress, 1st session. August 15, 1975. 132 p.
19. Soviet Space Programs, 1971-75. Vol. I: Overview, Facilities and Hardware, Manned and Unmanned Flight Programs, Bioastronautics, Civil and Military Applications, Projections of Future Plans. Staff report prepared by the Science Policy Research Division, Congressional Research Service, Library of Congress, Dr. Charles S. Sheldon II, Coordinator. Committee print. 94th Congress, 2d session. August 30, 1976. 668 p. Vol. II: Goals and Purposes, Organization, Resource Allocations, Attitudes toward International Cooperation and Space Law. Staff report prepared by the Foreign Affairs and National Defense Division, and Economics Division of the Congressional Research Service and the European Law Division of the Law Library, Library of Congress. Committee print. 94th Congress, 2d session. August 30, 1976. 221 p.



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